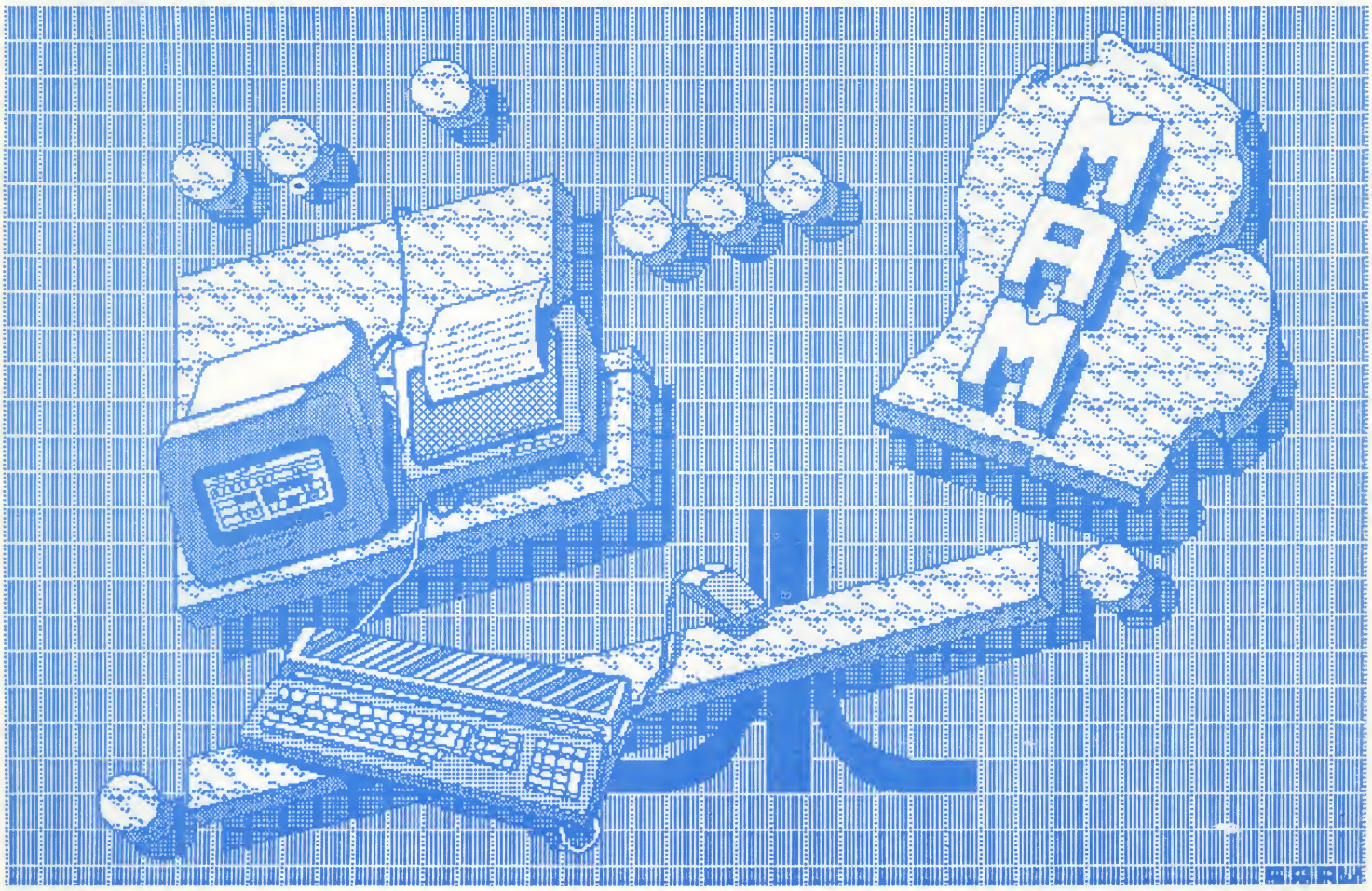
Michigan Atari Magazine

$2.00

Vol. 3 No. 7
July/Aug. 1988

Your Atari Interface



In This Issue:

- Summer CES Report
- Indiana Jones and the 1200XL
- Reviews of QuickCode, GFA Basic training, Modula-2 Commercial version, Macro Mouse, SwitchBack

and MORE ...

Astra News

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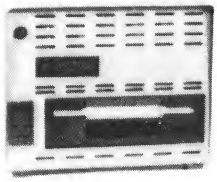

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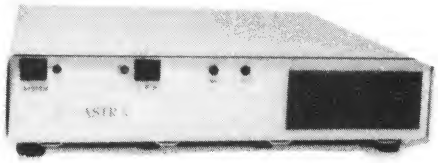

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MAM this Month

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Club News and Minutes

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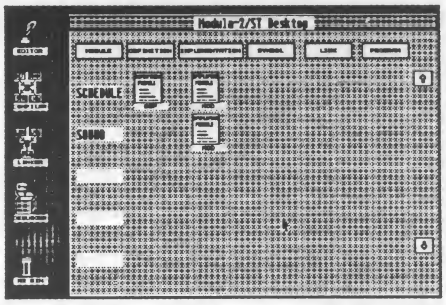
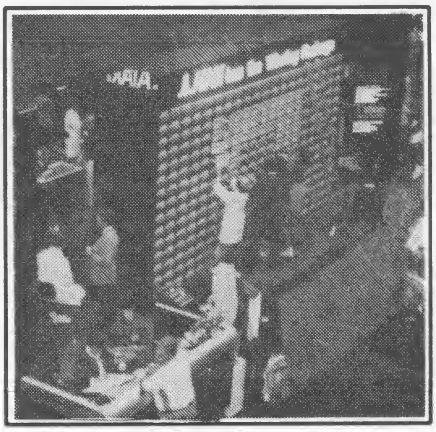
Volume 3, No. 7 July/August 1988



TDI's Modula-2
Commercial Version Pg.6



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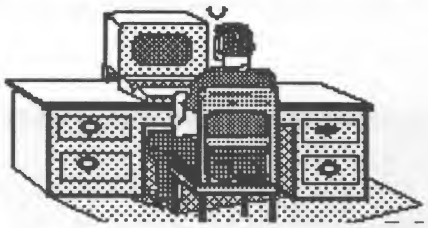

Editorial Ramblings

We're back! We only took one month off, but it definitely wasn't all fun and relaxation.

First, you should notice a few changes to the style of the magazine. Of course, we've been making small changes to MAM for months now, but we're finally getting to the point where the magazine *physically* matches the style we believe MAM should have.

We have also planned a number of topic-oriented issues of MAM, starting with this month's issue focusing on Programming. Future topics include Desktop Publishing, Business and Home Productivity, Entertainment and Telecommunications.

Speaking of telecommunications, MAM has officially gone on-line on Delphi, where Analog/ST-Log runs the Atari forums. Now, you can download past articles from MAM on Delphi, leave us mail there or even send us reviews via Delphi's mail facility (our ID is UnicornPub). For info on how to sign up for Delphi, give them a call at 1-800-544-4005. See ya there!

Finally, it seems a number of people were upset with the "reply" that was printed in the June issue's Reader's Viewpoint. We can see how some of you misconstrued it to be an attack on the person who wrote the letter, so we're going to clear it all up here and now.

The letter and the reply to the letter were *both* written by Gordon Totty, the author of the Strip Poker review that sparked the letter to begin with. Believe us, Gordon, your letter certainly has caused a lot of comment! There was even mention of it in a recent Zmag issue. And to think that a few months ago you were saying that you never get any feedback about your articles!

Bill and Pattie Rayl

PS. MAM celebrated its second birthday in July. We're come a long way in two years and special thanks are in order for all the individuals and clubs that have made MAM possible. Maybe next year we'll throw a party...what do you all think?

People Who Make It All Possible

Managing Ed: Patricia Snyder-Rayl
Editor: Bill Rayl
Comic Strip: Steve Volker
Contributors: Chris Miller, Paul Walkowski, Jerry Cross, Craig Harvey, Gary Ferris, Craig Schaff, Sally & Frank Nagy, Clinton Pierce, Bill Kane, Frank Fellheimer, John Nagy, Byron Johnson, LeRoy Valley and the participating user groups.

What We Are

Michigan Atari Magazine is a monthly magazine which also serves as the official newsletter of several independent Atari User Groups and is not affiliated with Atari Corp in any way.

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Authors: When submitting articles, please provide both printed and magnetic for when possible. AtariWriter/ ST Writer or ASCII perferred. Submissions may also be uploaded to the Treasure CheST BBS at (313) 973-9137 (3/12/2400 baud). Deadline is the 17th of each month for inclusion in the following month's issue.

Subscription Information

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Add $4 for Canadian and $8 for foreign subscriptions. Please include information concerning your computer hardware and experience and name of User Group(s) to which you belong. Make checks/ money orders payable to Unicorn Publications. For special User Group member subscription rates, please write or call.

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From the Reader's Viewpoint

Dear Editor, MAM

Another issue of the Michigan Atari Magazine has arrived in my mail; probably the last as my subscription is running out. But, even though I have defected to buying that "other machine" whose name almost rhymes with Mega, I have a lingering interest in the Atari world and will probably get this for several more issues.

My first comment goes back to the April issue, to that month's installment of "Learning Telecommunications Bit by Bit." In this article, I find a disparaging attack on an old friend of mine -- my MPP modem. Unlike Jerry Cross, I find the modem and software to be of excellent value. The handler file required to run this modem, at a size of 12 or 17 SD sectors, is not huge, and I got this to work with almost every terminal program I patched it to, including HomeTerm and all the Amodems I could find.

As for the SmartTerm terminal software cartridge supplied with the modem, after dabbling with Amodem and Express, this was the terminal program I came back to because of its speed and features, including its huge internal buffer(s) and modem break capability (necessary for Merit use and not found on the others). As for the modem itself, it compares favorably to its two main competitors, the Atari XM301 and 1030. Unlike the XM301, the MPP does not terminate the serial chain on the 8bit Atari (I never owned an XM301 because I could not use my printer and an XM301 at the same time). Like the XM301 and unlike the 1030, the MPP autoanswers. I have seen relatively crash free BBSes running on MPP modems, back in the days when there were 300 baud BBSes. If you can only afford a 300 baud modem and you can do without the XM301's touchtone capability, then an MPP might be the way to go.

Most importantly, the MPP and the Atari 1030 modems allow what appears to be the most inexpensive way for anyone to get online with any system. With a $25 minimal-style Atari 8bit system and an MPP or 1030, both with software in ROMs, for around $25, all a user needs is a TV and a phone line and he/she can call telecommunication systems. No disk drives or printers are needed.

The cover of MAM: You know, this is supposedly the *Michigan* Atari Magazine. If you are ever going to get subscribers in the Upper Peninsula, it might do well to include the rest of the state in the upper left hand corner of the cover.

The Contents page: looking sharper and sharper, but I still think a paragraph describing the ST hardware/software setup used to make this mag belongs here with the other information.

A suggestion: how about a page or two of the best comments found on the Treasure CheST BBS, sort of like the Bix excerpts printed in BYTE magazine?

The ads: People seem to be doing better at this, but even in the June issue, United Computer neglected to put the area code on the phone number in its ad. Not everyone in the state knows that United Computer in Canton is in the 313 area code, and readers in other states probably have no idea, so please, *all* advertisers (including United, Computer Emporium, Basic Bits and Bytes, Sector One), remember to put complete phone numbers and addresses in ads. This will help increase accessibility, and the interested reader won't have to call Information or look up ZIP codes in order to contact you. You do want to be easy to get a hold of, don't you?

Enough for now! Keep up the good work!

Chris Miller

Chris,

Your comments to the advertisers are very good ones, and we have been requesting that they supply complete addresses and phone numbers. This info really does benefit all involved. As for your other comments, we've done a few changes this issue and one of them is to add the system software info you suggest!

Bill

Dear Editor,

I have some questions about 8bit picture formats and I hope one of your readers can help me.

What are the differences and similarities between the different file formats for Atari 8bit pictures? Are there any "leading bytes" or sectors that tell you what kind of file you have? How do I file a standard 64 sector file picture to disk and then how can I load it in again? Thanks for your help,

Paul Walkowski

Paul,

Graphics Transformer from Alpha Systems allows loading/converting of various 8bit picture formats and Basic TurboCharger (also from Alpha) has source code for converting graphics. I'm definitely not very familiar with the different file formats. Anyone out there able to help more?

Bill

Dear MAM,

It has long been a custom for the Chicago Atari club, CLAUG, to help Atari set up and man the booth at CES. In exchange, Atari execs are escorted by limo to a special CLAUG meeting/dinner and do some serious public relations like answer questions and discuss Atari products. This year Atari showed how much it plans to support user groups – the top brass did not show up! This is partly understandable since many had a meeting with the folks of Children's World, a large toy store chain. The rest of the Atari folks (and many 3rd-party brass too) decided to take advantage of free baseball and rock concert tickets. This made for a very short, boring dinner for the people who gave up their night and paid cold cash to attend the special CLAUG meeting! The only Atari Rep to show up answered only a few questions and then left for another appointment. So much for Atari support.

I also found out about another Atari snub to user groups. Months ago Atari agreed to help the local Chicago Atari clubs to host an AtariFest this year. The one planned for 1987 was cancelled for a number of reasons. At first Atari promised to attend and help pay for the show. Well, as months passed, AtariFest planners could not get Atari to commit to attending and the promised seed money never surfaced. (Does this all sound strangely familiar folks?). Well, AtariFest planners decided to put their foot down and set a deadline. That deadline passed with no money from Atari, so the Chicago show was cancelled again!

I guess we will hear the same excuse about not advertising when there is no product to sell, but the folks in Chicago (and the Midwest) deserved to have this show! There are lots Atarians who would love to attend a show and get their first look at the new Atari products, even if they have to wait to buy them. As for the excuse that these types of shows are not worth the time, why are Commodore and Apple going through the trouble of putting on their own shows?

One more note. Not long ago there was a swap/trade show held in Lansing. Many local user groups were present, as were local vendors. This was not a major trade show or event, but Commodore sent out a representative to answer questions in the local Commodore club's booth. When was the last time you heard of an Atari Rep doing this? Atari, please get your act together before you loose the last few dedicated Atari fans you have!

Jerry Cross, President, GAG

Atari News and Comment

News Analysis by Bill Rayl

Quite a bit has happened in two month, so let's jump right in...

Chuck Babbit, Tony Gould and a number of others at Atari have walked. Atari's official reason for this is that Babbit and Gould were "temporarily" hired and their contracts "expired." Hmm...how many big companies do you know temporarily hire a president and vice president of sales? Doesn't it seem Atari would have announced them as temporary employees when the positions were originally filled?

With the flow of Atari computers to mail-order folks shut down, many areas of the country are finding it nearly impossible to get machines. Atari is reportedly working hard to better relations with existing dealers, but nothing has been said about encouraging new dealers. At the same time, dealers in areas with Federated stores have been complaining. It seems the Federated stores are well-stocked while the area dealers are begging for machines. (In Current Notes, a report by Lee Isgur, First Vice President of Paine-Webber, estimates demand for Atari products currently exceeds supply by *at least* 50 percent.)

With Atari not shipping as many machines as stores have been requesting, a "grey-market" seems to be developing. Some dealers in Canada and Australia, who are having no problems getting stock, have been approaching some US dealers with offers to supply the machines that Atari US isn't shipping. If this grey-market has sufficient time to develop, Atari could have real problems with getting a strong dealer network organized. Of course, the way Atari can fight is keeping the dealers stocked. We've been hearing for months Atari is planning to build a plant or two here in the US to help supply the US market. In the July issue of ST Informer, Houston, Texas is named as the site for the first plant while Current Notes says it may be built somewhere in New England. Other sources claim California, Arizona or Nevada will be home to the plant. Atari has been every tight-lipped about the whole thing, as the following excerpt from a recent Delphi conference demonstrates:

.Pattie>Well, how about the Texas plant that was discussed in Informer?

.Neil> Nothing to confirm on that one Pattie...yet.

.Neil> When there's an announcement to make, I'll be more than happy to talk.

In the June issue of MAM, I reported Atari may be shipping 520STfms with double-sided drives soon. Well, it seems a shipment of DS drive-equipped machines reached a Federated store in mid-July. An Atari dealer in that local area received a shipment a short time later and was shocked to find only single-sided drives in his order.

The dealer complained to his Atari rep. and was told the DS drive machines were meant for Germany and were mistakenly sent to Federated. Hmmm.... wonder why the computers had US ROMs, keyboards and power supplies?

One final note about Atari itself, our first ST (one of the original ones produced in 8/85) finally died after over two years of nearly 24-hour daily service. Rather than pay $40+ to get it fixed locally, we decided to send it back to Atari (with $95) for replacement. (After all, it was missing the new MMU chip which would have cost us $30, etc.) We received our replacement ST in just under three weeks. Not bad, Atari. I've listed Atari's return policy and prices elsewhere in this issue.

The long-awaited Publishing Partner Professional has finally been released -- sort of. Soft-Logik Publishing has released the program with "more bugs than we are comfortable with." The accompanying list of bugs include not being able to use DOC files from previous versions of Publishing Partner, not being able to paste graphics into a document and various other minor and not-so-minor problems. The manual which was shipped with this release is also incomplete, with only sections 1 and 5 supplied. The program itself looks good, but until the bugs are fixed, the program isn't very useful. I've gotten the program to lock or crash nearly every time I've run it.

QMI's ST-Talk Professional has also been released, though it has several bugs too. Depending on who you speak to at QMI, the

manuals are done and the software has a few bugs or the software is in final form but the manual is unfinished. Either way, I'm still waiting for my copy -- I've been waiting since November of 1986!

On a brighter side, a GDOS replacement program is on the way. Charles Johnson of Arcshell and MacroMouse fame (among others!) is about to release G-Wiz which is reported to have improved speed and memory usage over the old GDOS from Atari. Charles says the program has been tested with WordUp, Timeworks Publisher, CAD 3D, EasyDraw, etc, with no incompatibilities whatsoever. If you use any program that currently uses GDOS, $34.95 for G-Wiz will definitely be money well spent! More on G-Wiz next month.

ReeveSoft's Diamond should be released by the time you read this. Diamond is a Gem-like interface for the 8bit. Diamond will come with Diamond Draw, Diamond Write and Diamond Publish. It should be interesting to see how GOE from Merrill Ward and Diamond stack up side-by-side. We currently have demo version of GOE that looks very good. Look for a comparison review of GOE and Diamond in the near future.

Until next month, keep thinking and promoting Atari!

TDI Modula-2 ST Commercial Version

By Craig Harvey (WAUG)

If you're reading this article, you probably already know that Modula-2 is not some new shoot-em-up arcade game. It is a programming language that can be used as an alternative to BASIC, Pascal, C, Fortran, etc.

It is most similar to Pascal, since it was created by Niklaus Wirth, who also created Pascal. Pascal was created as an instructional tool so students learning to program would be forced to use structured programming techniques (i.e., writing programs in little easily identifiable chunks that each do one particular job). This results in a program that is easy for you and others to read and debug and modify as needed. If you have ever written a long program in Basic, you know that it can be hard to come back and modify it a few months later unless you have taken the trouble to separate out subroutines and document everything very clearly. Languages like Pascal and Modula-2 simply force you to do some of this, rather than leaving it up to you to remember.

Since Pascal was created as an instructional tool, it was not created with certain features that would be needed for major software development. Modula-2 was the answer to this, since it adds functions like multitasking, machine level support, and the ability to break the program into pieces (modules) that can be compiled separately. This is where the name comes from: MODUlar LAnguage. Any of you familiar with the latest versions of Pascal (especially Turbo Pascal version 4.0 for the IBM world) know Pascal has had things added to it (e.g. UCSD Pascal) that gave it similar power to Modula-2. So, it appears the choice now depends a lot more on personal taste than on which is more powerful.

There have been various reviews of the TDI Modula-2 package. but none that I am aware of have included the commercial version, other than mentioning what is stated in the promotional material for it (namely that it includes source code for all the library modules). So this review will briefly give the standard info on each version, then I will explain what I like and dislike about the package compared to other programming languages.

TDI markets three versions for the ST, all of which work on either color or monochrome systems with at least 512K of RAM and a single-sided disk drive.

Regular Version:

Full interface to GEM DOS, AES and VDI, plus Atari BIOS, XBIOS, and LINE-A routines.

Full screen GEM-based interactive editor that can automatically go through the edit-compile-link-run process and return you to compiler errors in your source code.

Smart Linker with an Optimizer that only links in needed code.

Supports transcendental functions, and 32bit real numbers.

No copy-protection is used, so it easily works on hard drives and ramdisks, as well as from floppies.

CODE statement allows in-line machine code commands.

Developer's Version:

Adds a Resource Construction Set (including a utility to embed the resource file into the main program), Symbol file decoder, Link file disassembler, source file cross-referencer, symbolic debugger, a high-level GEM application library, andsource code to a ramdisk and a print spooler.

Commercial Version:

All of the above plus source code to all the library routines.

If you are used to other languages at all, there is one thing you will probably hate immediately about Modula-2 -- all the special words of the language must be capitalized correctly. For example, the reserved words like BEGIN and END must be fully capitalized, and procedure names from the standard libraries must match the capitalization used in those libraries, like FormAlert or WindowOpen. I would hope eventually a smarter editor will provide an option to type these things in lower case and have it automatically convert to the proper case. The major advantage of the case rules is that Modula-2 provides what I consider the most readable source code around.

In general, especially when using the language on smaller programs, there is no need to use the language's modular capabilities, so each program will just be one single module. However, if you get into writing big programs, or

if you want to attempt a team development approach where each person writes different pieces of the program, then the modular capability becomes very useful. In this case, each major part of the program would have its own DEFINITION module and IMPLEMENTATION module, where the definition module contains only those pieces of information needed to be known by the other programmers, and the implementation module contains all the nitty gritty stuff of what your module actually does. This capability also allows you to build up your own libraries of pre-compiled routines that can be imported into future programs as needed.

Since most of one's programming time seems to be spent with the editor, a few (many?) words are called for here. I find the editor provided with this package to be fairly pleasant for the most part, and I use it for most of my smaller word processing chores like letter writing, rather than going to a fancier word processor that would require me to switch my mental function key table. However, there are a couple little annoyances:

1) When moving the cursor multiple spaces with the arrow keys, the cursor does not appear to move until the key is released, when it moves to where it would have moved if it had been moving the whole time. In other words, you have to time how long to hold down the arrow key without being able to see the cursor moving. This has to be easily fixed, because the cursor *does* move fine if there are compiler errors embedded in the text as a result of an unsuccessful compilation attempt.

2) The option to automate the edit-compile-link (or more usually edit-compile-re-edit) process works fine when you have both definition and implementation modules, but if you're just writing a program as one single module, you are not returned to the editor after compilation errors occur. You have to rerun the editor and then load in the file to edit, rather than having it be done for you.

3) If you have the automatic edit-compile-link option turned on, and try to abandon from editing a file, it will still try to compile it first, even if you turn off the automatic option before trying to abandon.

It should also be mentioned here that any ASCII text editor will work fine to write your code, but I don't think it would be possible to get another editor to make use of the automatic edit-compile-link feature.

Developer's Version:

For me, the most useful part of this version is the Resource Editor, since it allows *easy* (and *fun* creation of dialog boxes and menus of various types for use in your programs. You even get a utility to embed the resulting .RSC file into your main program so the final program is all in one .PRG file. Note that the documentation provided is not sufficient to accomplish this final step, but there is a public domain file I downloaded from GEnie that gives a very easy to follow example of how to do it.

I admit I haven't had occasion to do much with all the other tools provided in this package, but at least they all seemed to work. The one time I used the debugger it generated a rather huge file, so I've stuck to more simple-minded debugging techniques like trial-and-error.

Commercial Version:

The first thing I discovered in looking at the source code for some of the lower level routines (e.g. GEMDOS, BIOS, XBIOS) was a system command was being imported that I hadn't seen documented anywhere: PUSH. (e.g. FROM SYSTEM IMPORT ADR, SETREG, REG, CODE, PUSH;)

From the little I've dealt with assembly language programming, I figured this meant that it would take its argument and push it onto the stack. I confirmed this by comparing the procedures for routines like GEMDOS.ConIn to the corresponding assembly code in "ST Internals." Therefore, for anyone who likes to dig in and wallow around in the low level stuff from within Modula-2, you now have an alternative to using the CODE command. And if you haven't followed a word of this so far, you can probably conclude that the investment in the commercial version is not yet worth it for your purposes.

The next thing I was curious about was how the various AES and VDI calls were done. It turns out they are all based on the GemCall routine in the GEMAESbase module. By examining the source for these routines, you can correlate the TDI GEM procedures with those in other languages, since they are all based on the same IntIn and IntOut arrays. And who knows, you might even be able to modify them somewhat if you wanted.

Support

In the two years that I've owned this package, TDI has been good about coming out with upgrades to the package once or twice a year for prices ranging from about $10 to $50 depending on how much improvement has been made, and they have sent out questionnaires for suggested improvements. When I first acquired the package, I could easily get questions answered by TDI via CompuServe E-mail, but later this did not work, and I'm not sure of their current policy on this means of support. I've written a couple letters with various complaints and suggestions, none of which have been answered, but hopefully they will be taken into account in future revisions.

Documentation

The manual that comes with the package is mostly very good at explaining how to use the system, but not how to program in Modula-2, so you will need other references for that. The manual does have

an index of all the library's procedure names, constants, and variable types, which is nice but it does not fill the need for a real index, since that is all it lists and no page numbers are given.

Regarding other useful references, I've found the Abacus book "ST Internals" to come in very handy for proper use of a few of the GEMDOS commands, and if you want to really get into GEM, you will probably want some other book specifically on that.

I would be remiss if I did not also mention the value of a series of articles and programming examples by Sol Guber that have appeared in ST Applications, and are now available directly from him on disk (find the file 'MOD2INDX.TXT' on GEnie or on the Clear Thinking BBS at 313-761-2444).

As a final note, Jefferson Software also has a Modula-2 package for the ST, but since I have never tried it, I can't make any comparisons.

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Dallas, TX 75335-0279
Phone: (214) 340-4942

Scientists and third graders

by Clinton Pierce (GAG)

I hope to teach some programming techniques through examples and analogies through a series of articles. These are not intended for any particular computer or programming language. Whether you're writing a spreadsheet in Pascal or trying to pass a BASIC class, something here should help you.

Imagine scientists discussing the Grand Unified Theory (The Ultimate Physics problem: to unite the four forces into one theory) and proposing "Gravity and electromagnitism are related because when apples fall on my head, I turn off my radio and move to another tree...." Stupid, eh? Well, take a class full of third graders. They've been trying to learn multiplication and are having little success. The teacher has just been having them memorize the table of numbers, and wonders why nobody learns. One bright student figures out that 3x2=6 because 2+2+2=6 (The product of i and j equals the summation of i, j times). And suddenly the entire table becomes easy to learn.

Sounds too ludicrous to be true? A teacher would surely explain multiplication more clearly and scientists usually aren't so dense. Then why do I beat my head when Fortran students average 20 numbers using 20 variables? Few students have course in logic before entering programming -- a sad mistake. Logic is nothing more than the relationship of element to whole in a set of objects or events. Students do one of two things when making logic mistakes, they aren't detailed enough or they don't understand the grand picture.

For example, take the problem: you are a human brain, make your body stand up. Simple, huh? Let's play "BRAIN:" 1. lean upper torso forward 2. straighten knees a little 3. check semicircular canals (for head's position) 4. adjust lumbar and groin muscles to keep head up 5. adjust tendons in feet 6. are we "upright" yet? If so stop. If not go to step 1.

A lot of things could go wrong here. If you had just straightened your knees, you would've fallen on the chair (or your face). On the other extreme, you could've tried to control the individual molecular flexations that move the muscles. Your brain is much too busy for that stuff, and it's done by the central nervous system and the muscular system.

Problems in logic must be thought out completely and in detail. Overkill can be as bad as underkill (?). Examine the relationships of all of the variables, are they of great importance (do my feet know how to flex themselves)? In how many ways do they relate (does my gleutus maximus help my balance)? Break the problem down into steps. Is each step as important (significant) as all of the others? If not, is it actually a substep of another step?

Until next time, sleep well, Descartes...

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1040K:	Kit w/all parts, no RAM	$ 68
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Above prices correct on 7-15-88. Prices of populated boards subject to chip adjustments to meet fluctuating DRAM prices.

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QuickCode -- The 8bit Programmer's Library

By Gary Ferris (CHAOS)

It's not often that a new company can step in and make an immediate impact with a strong new software package, especially for a computer line that's been around as long as the Atari 8bit has. Stardust Software seems to have performed such a feat with QuickCode -- The Programmer's Library.

When I was first approached about QuickCode, I was, frankly, skeptical. I felt that it was probably too late in the game to be marketing a new programming language for the 8bit line. When the review package arrived and I had a chance to experiment with it, I realized that this was going to be worth a much closer look.

The QuickCode package contains a double-sided disk with the backside containing a great deal of additional documentation, which is not included in the impressive 66 page manual. QuickCode will work with any Atari XL/XE or 800 with at least 48k, one disk drive, and Mac-65 cartridge.

For those readers, unfamiliar with Mac-65, the next section will be a short overview of the language and what it can do.

Mac-65 is what's known as an editor/assembler. The cartridge also includes an excellent debugging utility, called DDT. Mac-65 is based on the Atari editor/ assembler cartridge, but with many enhanced features. The editor is actually divided into two parts. The edit mode is the one which will normally be used as it provides error checking similar to Atari BASIC. The other mode available is the textmode which provides no error checking, but can be used to edit nonassembler files.

The assembler allows you to write code in a form which is fairly easily understood by humans (ex. JMP $2000 means JUMP to memory location $2000) which is then converted (assembled) into the true machine level code which is impossible to comprehend for the average person (the above example would read as, 4C 00 20 in machine code).

The Mac-65 Assembler is especially powerful since it allows you to form macros. Forming a macro is literally like adding a new command to the language. If you have a routine which you are going to be using frequently, and do not wish to write the entire routine in each place it will be used, you can use the macro.

The DDT debugging utility allows you to actually view the program in operation. It allows you to set breakpoints (spots where the program will pause) which allow you to view the contents of variables and registers to see if the program is doing what it should.

Although not as easy to understand, assembly language can give an increase in execution speed of several hundred percent. This brings us to the reason QuickCode was developed. Although QuickCode is not actually a language, it is really a library of Mac-65 Macros, it allows you to write assembly language programs in a form which makes them nearly as easy to read and understand as a program written in a programming language. In fact, many of the QuickCode macros have the same name as the BASIC function they replace.

Other macros which have no exact counterpart BASIC retain the same general structure. If you are a user of Action!, BASIC XL, OR BASIC XE, then there are many commands you will recognize that are not in the regular Atari BASIC.

Macros must first be selected in a manner which the manual states may seem awkward at first. I still find it to be somewhat cumbersome, but it does get easier as you get used to it.

You start with a file called FILE.HND which contains a list of all the macros with a semicolon in front of the macro name. This places them all in the comment field. To select a macro, you go to that line and delete the semicolon. Then you place the name of your source program at the end of FILE.HND in an .INCLUDE statement and save the modified FILE.HND to disk.

I will discuss mostly the player/missile graphics macros and those used for program control or decision testing where I feel the power of QuickCode asserts itself most. You have a large number of options available to you for condition testing and program control in QuickCode, each of which has its own specific advantages which gives you tremendous flexibility. You

have the familiar FOR/NEXT and ON/GOTO/GOSUB. You also have a form of the IF/THEN sequence which has the added power of the ELSE command.

There are several variations of IF, each specific for the type of variable you are testing. In addition, you have the DO/OD loop which is claimed to be as much as 30 times as fast as a FOR/NEXT loop. The LOOP/ENDLOOP macro is claimed to be up to 50 times as fast as FOR/NEXT. The WHILE/ENDWHILE loop will execute as long as a set condition is true. With the CASE macro, you create two tables, one containing elements to be compared, and the other containing the point the program should jump to if a match is found.

There are also many Assembler type pseudo opcodes which test the status register such as JCC which will jump to the designated location if the Carry Flag is set.

Where QuickCode really shows it's power, is in it's graphics routines. It allows you to work in any graphics mode, even those unaccessable from BASIC or the OS! It allows you to easily manipulate the Player/Missiles and allows you to put the movement routines in the VBI (Vertical Blanking Interval) or access them as a subroutine.

It also makes manipulating the Display List fairly easy. The DL macro will change the OS pointer to your DISPLAY LIST and the DLI macro enables or disables Interrupts. The VBI macro will turn a user defined VBI routine on or off. The CHST macro allows you to have multiple character sets in memory and easily select which is active at any time. Assuming you have loaded a character set in page 110 (a page is 256 bytes), the QuickCode command would be CHST 110, in BASIC, the command needed is POKE 756,110.

Most of the DOS functions are available to you from your program with macros named for the function. For example, to RENAME a file in QuickCode , you enter RENAME 1,"TESTFILE.SRC,NEWFILE.SRC". In BASIC, you have to use XIO 32,#1,0,0,"D:TESTFILE.SRC ,NEWFILE.SRC".

Although QuickCode is definitely not for the Novice, I feel that anyone who has a reasonable grasp of BASIC, ACTION! or other language could easily write programs in QuickCode with out being an assembly language expert.

If you intend to write a program, which makes any significant use of the Atari's graphics capabilities, then I feel QuickCode is the logical choice.

For more information about QuickCode, contact:
Stardust Software,
P.O. Box 33192
Indianapolis, Indiana 46203.

Craig Schaff's Help 'n' Tips

This will be an article of helpful tips of information, definitions of basic computer terms, short programs that you can type-in in just a few minutes and other little tidbits of information.

If you have any comments, questions or hints, pass them on to me at 787-3970. I don't have a large library of tips, so any will help. Here's a call now! Hello. Yes, I did, with extra cheese and no anchovies. Sorry, that was my health food order. Okay as I was saying, this column will be serious and there will not be any fooling around!

I'll begin with a definition: PEEK. Peek is a function used in BASIC programming to recover the value in a memory location. To get an idea of how it works type in the following two lines exactly as they appear.

```
10 PRINT PEEK(764)
20 GOTO 10
```

After you have typed them in, (pressing Return after each line), type the word RUN then hit the Return key and watch what happens. The numbers are the Atascii (I'll explain Atascii later) number for the last key pressed. As you press different keys, the numbers will change too.

What you did was tell the computer to print on the screen the number in the memory location #764, which is the memory location for the last key pressed.

Until next month, "help take a byte out of crime."

GFA BASIC Training: Reboot Camp

by Sally & Frank Nagy (CHAOS)

Time to reload that GFA BASIC language disk filed away in your dusty disk archives. Just because it wasn't easy to use before doesn't mean you can't learn it now with the aid of GFA's BASIC training manual. This book helped me get a running start with this version of BASIC for the ST. GFA Basic by Michtron is also required.

Program development is handled step by step with various commands and functions coming into practical application. Enough are presented to provide a solid foundation to build on. Much like a beginning music book teaches enough notes to play a couple simple tunes, this book starts you off with enough to get your feet wet with some easy programs.

Create a picture adding animation and sound. Write a player piano that plays "Mary Had a Little Lamb" with a ball dancing on the piano keys. Learn how easy it is to control your mouse and re-define its shape. Falling balls are caught with a hand moved via the mouse. Change screen text sizes. Make random dice tosses. Form alert boxes. Create a Simon Memory game.

In a chapter on Graphics Text, learn about the Deftext command which defines the color, style, degree of rotation and the size of the text; the Graphmode command which determines the graphic mode; and the Text command which tells the computer to print a specified string on the screen at a specified place.

Only one new aspect of programming is ever handled at a time, allowing easy integration of the material. The book builds chapter upon chapter with applied understandings. Even the novice who follows the work plan laid out by the book will have a fully developed program when he is through.

Self tests are provided at the end of each chapter. Completing these encourage hands-on understanding of independent programming skills and give debugging experience.

For example, the Graphics Text self test asks, "What does the first variable after Deftext tell the computer?" The answer is, "It changes the color." After looking at a short program listing more questions are asked: What color will the text be in this listing? How many pixels high will the letters be? What style of text will be printed? and so on. But to find the answers you will have to refer to the text.

The self tests don't list the answers anywhere. Most books like this include a crib sheet. Only a few will be able identify errors and correct them rather than continue in confusion.

I did find this book explaining many commands and functions. Working through the examples greatly expanded my GFA Basic programming experience. I learned the GET/PUT and SGET /SPUT graphic commands used to display all or a portion of the screen and got a handle on how to animate programs.

I really disliked how the return key was indicated as an arrow, especially when that's all there is on the line. (On top of this, an editing error made some of these arrows upside down question marks.) Mistakes like these to present only confusion for the young programmer.

A problem occurs on page 52, the self test for Chapter 2. In the program DAYS.BAS, the corrected version of the program should list all the information in a column rather than one long line statement.

In Appendix A, the Quick Reference to Commands and Functions left blanks for the reader to fill in. Again a reference like this would be better if it left nothing to the imagination or possible error of the novice.

All considered, the book presents 259 pages chock full of useful information.

GFA BASIC Reference Card

Michtron's GFA Basic "Slick Reference Card" is a smartly designed fold-out guide for GFA programmers. Folded, the 3 3/4 x 8 1/2 inch card easily slips into any GFA Basic Book. The Card accordions to 22 inches. Both sides pack details on proper syntax and required parameters for every command.

Brush up on Disk and Graphics Commands, Directory and Mouse functions. Machine level commands, GFA Basic and Compiler Error Messages, VT 52 Terminal Escape Codes, Types of Variables, Constants, Operators, and more.

This card is organized in a way people can readily use. For most people it's easier to think in terms of subject and find that alphabetically with commands as subheadings.

In this way, this resource has it over the GFA manual which lists by commands alone. You will want to keep this invaluable programming aid handy as you program in GFA Basic.

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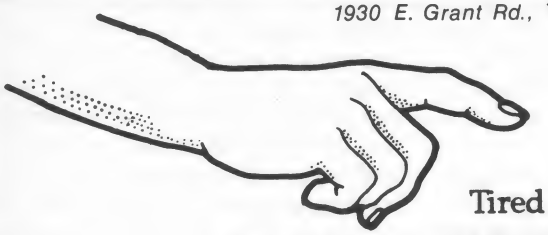

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THE *MASTER SERIES*

Summer Consumer Electonics Show Report

By Jerry Cross

If you are an avid Atari Game fan, I have some great news for you from the 1988 Summer Consumer Electronics Show held in Chicago, June 4-7. The rest of you can hold on to your seats!

I am in the latter group. I do enjoy playing games, but I was really looking forward to seeing Atari products like the CD-ROM player, PC clones and all the rest of the Atari line. I was also interested in new ST software. I was very disappointed to find none of these things displayed at Atari's booth. The entire shiny, black booth was dedicated to the Atari game systems (XE, 2600, 7800). The only STs (actually "hidden" behind the booth) were used by Hybrid Arts to demo MIDI software.

First, Atari's Electronic Entertainment division announced a new ad campaign entitled "The Fun is Back." Atari promised a multi-million dollar ad campaign (does this all sound familiar?) and has hired sports stars to appear in the ads. These include Ozzie Smith of the St. Louis Cardinals, Spud Webb of the Atlanta Hawks and Doug Williams of the Washington Redskins. Williams and Webb were at CES to endorse Atari products and sign autographs. Atari also plans a new promotion to help sales. If a buyer sends in the proof of purchase from Atari's Basketball cartridge, he/she will qualify for a trip to the NBA Championship series -- same for the Baseball game cartridge and the World Series and the Super-Bowl with a football cartridge. The game products will be sold in more stores, including Rose stores (in SE U.S.), Musicland/ Sam Goody stores and Ace Hardware and True Value stores and Montgomery Wards.

In other news, Atari plans to release 45 titles in the second half of 1988 -- six for the 2600, 19 for the 7800 and 20 for the Game machine. The games are licensed from (to name a few) Accolade, Broderbund, Cosmim, Data East, Electronic Arts, Epyx, Exidy, LucasFilm, Namco, Spectrum Holobyte and subLOGIC. Some of the titles for the XE machines include Gato, Ace of Aces, Airball, Into the Eagles Nest, Necromancer, FoodFight, Commando and Desert Falcon. New 7800 system games will include Ballblazer, Dark Chambers, Desert Falcon, Impossible Mission, Winter Games, Hat Trick, and Super Baseball. New 2600 titles include Crossbow, Sprintmaster, Super Baseball, and Super Football. Some of you may recognize that many of these games aren't new but are just re-released older games.

If you are a long-time Atari fan, the name Nolan Bushnell probably rings a bell. He is the founder of Atari and is now chairman of Axlon, Inc. Atari has hired Bushnell to develop additional games for the 2600 and 7800 game machines. It was not specified how many he will produce or the nature of the programs. In an interview printed in the July issue of the San Leandro Computer Club Journal, Bushnell stated, "We know the Atari system inside and out. The software we can do now almost makes it feel like a completely new machine."

Finally, Atari announced it has joined with Yamaha Music Corporation to promote both their products. For under $1000, you can now purchase a MIDI home music system. This is supposed to be an easy to use system which will include an Atari 520STfm, Yamaha PSS480 keyboard and Passport's Master-tracks Jr. The package should be available in the third quarter and will be sold at Lechmere and Federated stores.

Other companies at CES were showing a lot of other games; many were not ready for release on the ST but were being shown on other systems such as the Amiga and IBM. Dolphin Software demonstrated an interesting package of programs it hopes will do for Dolphin what Flight Simulator did for sub-LOGIC. The Dolphin Marine Software is a set of programs/ data disks that is a complete boating/sailing/voyaging simulation. You learn how to handle your boat, navigate, and everything you need to sail. You can ride anything from a tiny Catboat all the way up to a 32 foot Ketch cruiser. A learning series is also available. Prices for each disk will run around $44.95.

Epyx is making a major push into the ST game market with several new games including California Games, Final Assault, SuperCycle, Impossible Mission II, Temple of Apshai,

Sports-a-Rama and many more. Art and Film Director is a nice program which gives you the flexibility of a CAD program and a drawing program in one package. You can use this to make cute cartoons/screens to put into your home videos or more advanced uses like complete animation.

Taito, the coin-op company, will soon release several fun games -- Bubble Bobble, Alcon, Operation Wolf, Arkanoid, Renegade, Sky Shark and Gladiator are on the way. Baudville Software will be bringing out Award Maker Plus for the ST and may bring out additional library disks if the program is successful (ie, it's not pirated to death). Also, Dreamzone should be out in August. Broderbund introduced Star Wars and Downhill Challenge. They also showed VCR Companion, a program that creates colorful titles, graphics, credits, introductions, intermissions and endings for your videotapes.

First Row Software was trying to show a new program called Twilight Zone, but somebody forgot the password and no one had the manual when I was at their booth! It's supposed to be an adventure game. First Row also announced The Honeymooners, based on the TV show. These are currently being released for the Amiga, but will be ported over to the ST soon. Prime Time is a sophisticated simulation of network TV where players compete for program viewers in a ratings war. Prime Time is available for the ST now.

Intracorp announced a number of new programs including Murder on the Atlantic, Birds 'n Bees, Space Math and Business Card Maker. Paragon Software had several new games. The most interesting is an Infocom-type game called Guardians of Infinity. This games allows and understands multiple sentences -- it has some artificial intelligence that can actually figure out what you are trying to say! Telegames will be re-releasing several games -- some of them spiffed up a bit. Telegames also announced another addition to the game machine market called "The Personal Arcade System." It will run all of the older Coleco games and sells for around $50.

Three-sixty Software showed Warlock, an arcade game with 20 levels of difficulty and lots of cute little traps and problems to solve. Cinemaware was showing the recently released Three Stooges program. Also coming is King of Chicago, another great graphics adventure, and Sinbad. SSI introduced two new games. Questron II and Heros of the Lance, which is derived from TSR's Advanced Dungeon and Dragons DragonLance series. Heros of the Lance and Pool of Radiance are SSI's first in a series of colloborations with TSR. MicroComputer Games was showing Spitfire 40, a great-looking WWII flight simulator game. Data East has a new game called Platoon, which is based on the Viet Nam movie. They were passing out cute little dog-tags to CES visitors.

Gee, the list gets longer and longer, and did you notice how few productivity packages there were? In fact, the only non-entertainment software besides Hybrid Arts was LDW Power, a Lotus 1-2-3 version 2 compatible spreadsheet from Logical Design Works with built-in graphing capability, very fast calculations and a well-organized 232-page manual. LDW Power certainly was impressive. It's available now for only $150. As you can see, there were lots of new games coming out for the ST, but very few for 8bit users. With the exception of the game cartridges announced by Atari, very little is planned for the 8bit.

There were a few other interesting thing in the Computer Games and Entertainment area. Intex will be bringing out a neat little lap-top computer for kids. It is designed as a learning computer with memory and includes 16 learning activities designed to be educational and fun. They also plan to produce two optional plug-in learning cartridges. Suggested retail is $69 and cartridge will run around $20.

The Nintendo booth was beyond belief! It was about the size of a football field and took up most of the computer exhibit. It was filled with vendors showing dozens of new games. One of interest is called Adventure of Link. This is another adventure/arcade game, but includes a built-in battery that will store information for future use after the machine has been turned off. It would be interesting to see this in some of the Atari cartridges.

Integ, Epyx and several other companies are offering more of those VCR/board games. Expect to see titles such as Football, Golf, Soccer, Wrestling and 221B Baker Street, among others.

Moving into the "goofy products" area we have a toy called Footnotes, an electronic keyboard/mat you lay on the floor and jump on to create music. Or how about a hand-held Monopoly/Scrabble game? This one played against world champion Monopoly players and ended in a draw! It also features a removable Eprom socket so you can add additional games (when they come out). Winner of this year's goofiest product goes to Ultimate Creations for their Cubonic game. It is a cube with colored lights on each side; by flipping the cube over, you change the color of the lights. Study the patterns and continue flipping until you have the same colors on each side. It's sort of like an electronic Rubic's Cube, and only $200.

Last year I was kidding around about a couple of products. One was the waterproof radio/flashlight. Now you can't walk into a department store without seeing them. Well, this year I have a few predictions of products that will be hits! The first is called the Spectrum 3SE, the worlds smallest self-contained radar detector. It's loaded with features, and is smaller than a pack of cigarettes!

If you attended our last meeting, you may have seen a product that Lou was showing. It was a square, clear screen that lays on top of an overhead projector and plugs into your computer. It lets you

project the screen of your computer onto the wall. Well, what would happen if you took that screen, shrunk it to the size of a 35mm slide and put it into a projector? You would end up with the worlds smallest projection TV system. The one on display at CES had a very sharp, easy to see picture. The display can be as small as 2 feet and as big as 18! There is also an option for a built-in receiver and VCR. Prices range from $1000 to $3000 depending on the features.

The show was a disappointment for me with no new PCs or ABAQs to see. What was even more disappointing was Atari did not share its booth with third-party developers as in the past. One Atari representative at the booth simply said, "Why should we do the same thing every year?"

Well, I guess Nintendo was making that mistake over in its booth; Nintendo's 20,000 square-foot display area (no, that's not a misprint!) was filled with developers!

Classified Ads

For Sale: An XF551 Atari Disk drive, never used. DD/DS. Also, two Signalman Mark XII 1200 baud modems. Hayes Compatible RS-232Auto answer, Dial/call progress detection. Excellent started modem for beginners. $70 each. Call Jerry Cross, (517) 736-4544.

Software for sale: TimeWorks Publisher ST for $75, regularly $150, demo version of TDI's Commercial Modula-2 package. Retail is $300, will sell for $150. Call Pattie at (313) 973-8825.

Scott Sheck's Bowling League Secretary Ver. 2

8bit software review by Bill Kane (MACE)

Last fall I wrote a review of this program, and gave it a good rating. This coming year, I, am going to be a league secretary like my wife. I decided to take a shot at it because of this program. I noticed minor changes I would like made to the program, so I wrote a letter to Mr. Sheck asking if he could modify his software. I received a letter saying these changes already were available in an upgrade for $20. Though I feel this is too high an upgrade price, I knew it would be worth it. I guess it is all in what you consider the software is worth in the beginning.

Here is quick overview of the original program. It will support up to 255 bowlers and 2 to 36 teams. You can use one or two drives and the software directly supports any Epson-compatable dot matrix printer. It also includes a printer driver editor section. You can have up to eight bowlers per team and up to 40 roving subs per league. The software handles bowler and team forfeits, vacancies, blind scores, & absentees.

You can modify statistics very easy automatically computing and outputting: Ind. hdcp, games, pins, avg, hgs, hgh, hss, & hsh, team wins, losses, total pins, hgs, hgh, hss, & hsh, and individual standings for high average, game, game hdcp. series, & series hdcp.

Here are some of the changes: Print entering averages on weekly sheet and rank entering average; print bowlers ranked by improvement, which is the current average minus the entering average; enter the modify menu from the master menu; add comments to the weekly sheet; option of printing or not printing the hdcp totals on the team sheets produced from the sorted output section.

After entering scores, you now have the option to skip the sub scores section. You can selectively print the following items on the weekly sheet: replace Treasurer with President; display of the lane schedule; display of team scratch highs; display of team hdcp highs; display star of the week; display skunk of the week. These options are turned on and off from a special screen in the output scores section where you print the weekly sheet.

You can send weekly sheet output to a file as well as the screen and printer, and of course, you can output individual record sheets from the output scores section. The previous weekly games can also be modified. As an added feature for those of you who have and are used to using the Atari CX-85 keypad, it is now supported by the program for data entry. Just plug it into joystick port 2.

This was a fine program to start with, and now is even better. I have seen other programs, and this one puts them to shame. Scott Sheck, 9075 Centerway Rd., Gaithersburg, MD 20879.

Indiana Jones and The 1200XL

By Frank Fellheimer (GKAUG)

I am the owner of not just one 1200XL, but count them, three. Maybe you'd like to sell me the Brooklyn Bridge, but be sure that I am no fool. I bought my 1200XL's because I really like a number of features not available on the newer 800XL/XE or even the older 800s.

After three years of ribbing on my system, I undertook several projects to get my system up to snuff with the others...it's even better now. For years I felt like Indiana Jones trying to locate and keep a precious jewel. You know the troubles he had!

My trip is over because I finally got back home with all the goodies. Let's recap some of the problems of the 1200XL.

1. 64K RAM only: No expansion possible.
2. No 5vdc for Interfaces & Modems.
3. XL Operating system only
4. Loss of Luminance control on high end of color ranges.
5. Text resolution not as good as 800XL.

Have you had any of these problems? I have, for sure, and every one laughed at me because I still wanted to use this "beast" of a machine. Why? Let me tell you. It's still the only 8bit computer Atari has with four function keys. They control the cursor with only one key stroke and are redefinable. The Start/ Select/Option buttons are out of the way so you don't hit them by mistake. It has a wide Delete/ Back Space key, a wide Return key, a wide Control key, two quadruple-wide Shift keys and wide Caps key. The keyboard itself is probably the best responding, simplest operating and maintaining, and well-built keyboard I have seen.

"That's just wonderful," you say, "and how about the problems?" OK, here we go. I have an ICD 256K RAM expansion board; it works really great. Newell also has one for the 1200XL. The 5vdc can be returned to your serial port simply by jumpering out R-63 (current limiting resistor) inside the unit.

Once that is done, you can buy any standard interface or peripheral without need of an external power supply. Since the 1200XL doesn't have a built-in operating system, there is no need to hold Option to boot Machine Language programs...if it's BASIC, you can still slip in any cartridge you want.

Another new development is I was able to obtain a dual operating system for my 1200XL. Fred Farleigh of Battle Creek makes the "FOS" for the 1200XL. It allows me to switch between the 1200XL operating system and the old 800 operating system...now I can use all the programs available for the Atari since I got mine in 1982. I love it!

How about the luminance control? That can be cured by jumpering capacitor #C115. Lastly, text resolution can be improved by snipping off one end of capacitor #C60. It's enough improvement it can be noticed.

I hope this little article has helped you 1200XL owners. Look me up at the GKAUG BBS (616) 657- 2665.

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Macro Mouse
by Charles Johnson

by Byron Johnson (GLASS)

Macro Mouse allows the user to access many features of the control panel and many new features without filling up your desktop accessory slots. It's also an easy way to initiate multiple repetitive keystrokes with two keys.

To activate Mouse Macro, simply press [alt] and [help], a line of text will appear in place of the desktop menu titles. Press a function key to activate commands (such as F9 to run calculator), when finished press the [escape] key to exit.

Here's a list of the functions of Macro Mouse and Macro Utilities:

[F1]: record macro - memorizes all keystrokes, mouse movement and mouse clicks to create macros.

[F2]: run macro - plays back the stored sequence of keystrokes. It looks like a ghost is running the computer, with the mouses arrow floating all over the screen and selecting programs to run.

[F3]: modify macro - while running an existing macro to the point it needs to be changed, then keying in the correct key strokes while it records the new changes.

[F4]: loop macro - runs a specified macro over and over again.

[F5]: change or select screen colors: up to ten sets of desktop colors may be selected, changed and saved to disk.

[F6]: display or change date and time - example: [Monday July 1, 1988 08:04:50 P.M.] is displayed in upper left corner of screen temporarily.

[F7]: set key repeat rate and key delay rate - using numbers rather than a slider bar makes it easier to reset rates at a future time. The key repeat rate is useful for drawing lines quickly with the underscore or period characters. The key delay rate controls the time between touching a key and when it starts to repeat. If the delay is too short, then its hard to type text without double letters, if the delay is too long then you have to wait too long before drawing lines.

[F8]: key click - on/off.

[F9]: calculator - a limited use conversion from hex to decimal or decimal to hex.

[F10]: free ram - shows free ram in upper right hand corner of screen.

[F11]: load macro - from disk, you must remember name of macro to load it.

[F12]: save macro - to disk, for future use.

[F13]: disk verify - on/off, I always use verify for floppy disks.

[F14]: screen echo - on/off, whatever text goes to the screen also goes to the printer.

[F15]: ascii code - gives access to upper 128 symbols in Atari character set, like foreign language, scientific, copyright and trademark symbols, to be displayed on screen only.

[F16]: screen dump - to Degas file, extension automatically added.

[F17]: printer codes - allows sending format codes directly to printer, like: top of form, skip over perforations, double strike mode, ect. Also will send text to printer, one line at a time. Useful for titles, addressing envelopes, ect.

[F18]: not used.

[F19]: not used.

[F20]: warm/cold reset - a warm reset will allow ram disks and certain variables to remain in memory, a cold reset is the same as turning the power off and on again, without actually removing power from the system. Repeatedly cycling the power on solid state electronics is not recommended. The cold reset is a valuable option in this software.

A macro is simply a series of keystrokes, mouse movements or mouse clicks used to run/exit an application or open/close a folder. Let's say after boot-up, I want to exit the existing D:\ directory, then open the E:\ directory to run Word Writer ST. First press [alt] and [help] to view function key definitions, press [F1] for record macro, press [F4] to store the new macro there, then begin the sequence: move the mouse to the upper left close box on the D:\ directory, click it to exit D:\, then double click E:\ to bring up the E:\ directory, then double click the Word Writer folder, then double click the Word Writer program and if you want, double click the document you want to load. To end the macro, press [control] and [shift] and [alternate]. Now save the macro to your boot disk (either A: or

C:) and you're ready to run it. Running the macro is easy: press [alt] and [help] to access the command line, press [F2] to run a macro, press [F4] to select which macro to run and watch it happen. Its like a ghost is operating your computer!

Possible uses for Macro Mouse: If you use your word processor most of the time, the ST could be macro'ed at boot up to open the word processor folder, then load your word processor, then load your document and even go to the end of the existing document, already for you to start typing; to automate repetitive keystrokes in a database or spreadsheet; to automatically load any program and run it, without having to open a directory, open a folder, load the program, select the options and finally run it, and if you choose, run it continuously for demos.

While adding Macro Mouse and its utility package to my boot disk, I found didn't need a total of 34K of other programs. While only taking up 36k for the Macmouse.acc and Macutil.prg, it gives the user two screen dumps, one to printer and one to disk, both available at the same time. It speeds up the "disk info" function from 12 seconds on a ten meg drive to under 3 seconds.

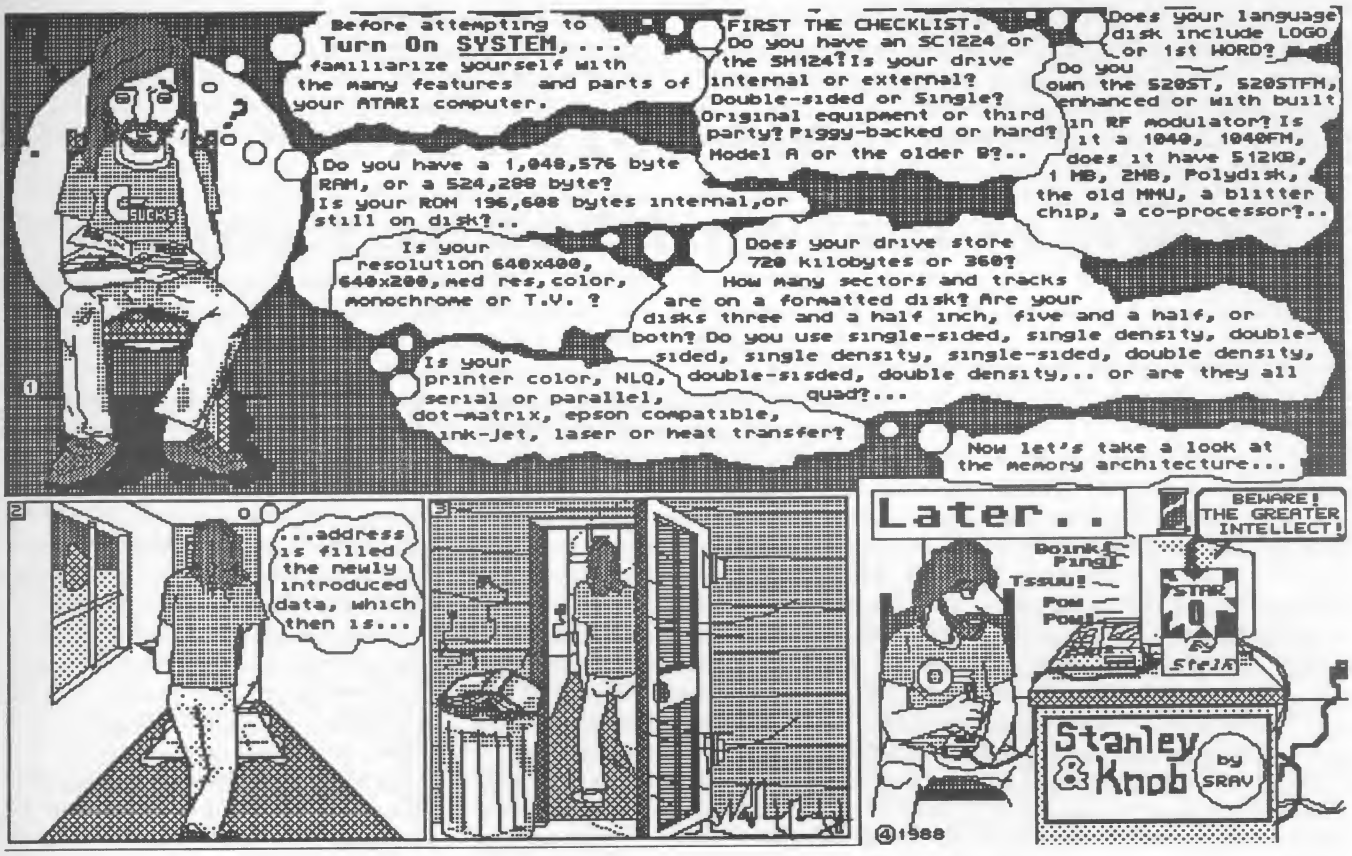
With the way Charles Johnson continuously updates programs, (he is the author of ArcShell) I think we can look forward to other improvements for this fine package. Macro Mouse has found a permanent home on my desktop. Thanks!

The manual is fifty pages long and is quite complete except for installation of all the programs. I would have liked the disk set-up with an auto folder and the supplied programs arranged properly on the disk. This package might be confusing for the newer ST user.

It will work with any program, not just GEM programs, with the following exceptions: First Cadd, SubLogics Flight Simulator, smpte-tracks, DX-Android, Spectrum 512, Fselect (PD), or any other program that uses only a joystick. It works fine with Universal File Selector!

The newest feature just added and mentioned in the readme.doc file is resolution dependent macros. You can have three auto-run macros and Macro Mouse will select one of them at boot-up depending on the resolution your system is in. Also the values from the conversion calculator can be input directly into a program like a word processor or spreadsheet. The tutorial shows how to write a macro using the Spectrum slide viewer with slides and how to save and run your macro. The configuration program gives the option of drive (A:\ thru P:\), change the size of the recording buffers or select one of four auto-run macros. Macros typically take about 4k to 6k of memory.

Macro Mouse is not copy-protected, runs in all three resolutions, sells for about $28 and is distributed by Antic Publishing. It is written entirely in assembly language for maximum speed.



New 8bit Software
Commercial and Public Domain

By John Nagy (CHAOS)

I can't begin to tell you about all the goodies newly available for our 8bit Atari, but several are particularly exciting right now.

Public Domain Releases

Alfcrunch - Not a way to smash furry aliens, this is finally a *better* file compactor than ARC (archive). For about a year, ARC has been the protocol of choice for "making little ones out of big ones." Arc uses the same format as the IBM and ST archive, allowing interchange between machines.

The reduced size and recovery of the original filenames is very important to users to tranfer files and also for backing up files in a minimum of disk space. The down side of ARC has been occasional "CRC Checksum" errors making the output files not match the input, a buggy user interface on the 8bit ARC and un-ARC programs can cause lots of lost time and effort, and the *slow* performance of ARC on the 8bit.

Alfcrunch, by Alfred of the Programmer's Aid BBS (416) 465-4182, provides a remarkable alternative to ARC. I don't know how it works... but it works great! Alfred, whoever he is, doesn't call this work "shareware" or ask for donations... although few have been more deserving.

When I first tested Alfcrunch to compact a list of files, I was certain it had errored out or was somehow "faking it", since it was done in 30 seconds! The same list later took almost four minutes to ARC. It was even faster un-ALFing (?) the compacted file ...only about 20 seconds! De-ARCing its mate took over 3 minutes. And the bottom line: ARC saved 26% compared to the total of the original file sizes, while Alfcrunch saved 45%!

I could not coax Alfcrunch into making any errors of its own and the documentation that comes with it is very thorough.

The output file from Alfcrunch (version 1.2 and higher) can also be "viewed" with any of the many ARC-view programs floating around on the BBS circuit, allowing the file contents and retored sizes to be examined without processing the file to a disk. So, Alfcrunch solves all of the problems of ARC except the compatiability with other type computers. As a result, I can only see two cases that would make you choose to use any other compaction method: 1) When you know your file must be later read by machines other than your 8bit; 2) When you must transfer a boot disk or a DOS (use DISKCOM).

DETERM - A new teminal to compete in the EXPRESS! dominated telecomunications market. This one, by Jim Dillow, offers a few interesting features, the most noteable one, a built-in Breakout game, playable even while online or downloading files!

At this point, R: driven modem systems (850 interface-type and maybe XM301/1030 modems) are supported. Also, Modem.BAT files are supported for sending commands at bootup to your modem. Other functions are pretty conventional for a good terminal (macros, phone lists, etc), plus there is support for easing some of the PC-Pursuit command entry confusion for subscribers to that service.

SignMaker 1.3 - Jeff Colehour impressed us with SignMaker, reviewed briefly in an earlier column. Version 1.3 goes further to debug and simplify the use of this shareware program. Basically an alternative to PrintShop, SignMaker allows the use of any two PrintShop format icons and any combination of any three Atari fonts in any of four sizes, all on the same page. Text can be imported from normal word processor files, and can be automatically centered. The biggest change in the new version is the view sign feature. Although it must first save the sign data to a disk (and it takes a whole disk!), this lets you examine the final product before printing, as well as saving it for later use. If you save it to ramdisk, the process is very fast, so viewing need not be a painfully long experience on an extended memory computer.

PS Utilities 1.0 - Rich Spencer has put several useful features into one package, written in ACTION!. It accomplishes the hard-to-live-without functions of renaming, copying, and deleting PrintShop format icons. It also allows conversion of MicroPainter (Koala/Touch Tablet) format files into icons (and back!). Although these features are available (one at a time) via

the commercial PrintShop Companion plus various other PD programs, this is a nice package for serious PrintShop users. The documentation ends with some very useful information about the innards of a PrintShop disk, and asks for input for future versions.

POSDEMO - Hold on to your seat for an 800+ sector download of Xenia Research's Point of Sale demo. Although it is a demo of a commercial product, this demo is worth its weight in RAM chips if you want to show off your 8bit system. It requires that you DiskCom the file onto a double density disk, and when it runs, it shows many functions of a store inventory, sales, receipt, ordering, and saleperson reporting system. Barcodes are printed and read, documents and reports stream out of the printer, the display shows finely designed "Synfile" looking screens for input and output. This system is expected to sell for well under $200 including the Barcode reader and can network several sales locations for interdependant operation. It should be available for sale by the time you read this. Best Electronics of San Jose, CA and Butlers Computers in Federal Way, WA will have supplies of POS NET.

Commercial releases

As the "big" software companies move out of 8bit support, imports, small companies and "basement operations" are taking over, often with innovative offerings. Three recent releases for the 8bit continue this trend: a new disk operating system, SuperDOS; an operating environment, MTOS; and a machine language utility, Programmer's Pal.

SuperDOS is an Austrailian import, written by Paul Nicholls (US distribution is by Technical Support, 205 Peoria Street, Daly City, CA 94014). The price is $20 plus $1 shipping. Unlike some DOS replacements, SuperDOS does not use the kernel from Atari DOS 2.0 or 2.5. SuperDOS does have the same DOS.SYS and DUP.SYS structure but it is all new code. Also included is an AUX. SYS file for the seldom used features, and menu utilities for running BASIC or binary programs.

So what makes this DOS anything you would want? Plenty. First, it supports all three normal Atari disk densities, with automatic sensing and reconfiguring. It sets up its own ramdisk, checking first to see if it should be any configuration up to 320K - even Axlon ramdisks for use on 800's! It will automatically copy any file with a .RAM extender into its ramdisk at bootup, and will switch to ramdisk for any input/output if DRIVE #1 goes offline. That means you can copy files to RAM (which will be called by anything from D5: to D8:), shut off your D1: and the program will run from RAMDISK with no device number errors.

It'll trace and restore deleted files, as well as attempt to patch damaged sector files. You can use lower case, inverse, and numbers in the filenames. Its binary save will even save a cartridge to disk. It will copy to and from cassettes. A true sector copy feature skips empty sectors. DOS 3.0 is even supported for conversion to DOS 2.x format using one or two drives. Set your key repeat rate, verify, buffers, etc. from the menu without pokes. XIO support has been added for access to the higher functions of SuperDOS from BASIC or ML programs, all with good documentation.

All this plus those things we have gotten used to on the up-scale DOS's, like single keypress menus, resident DUP.SYS, menu-top indicators of drive densities, double column file directories, high-speed and skew I/O support for the U.S. Doubler and Supermax, and a lot more. So, how is it to use? It feels a lot like DOS 2.x or SmartDOS using a menu. The screen keeps changing colors according to the process underway. Most operations are nicely prompted, with only a few too many "are you sure" messages. But if you don't want to see them, most operations can suppress verification by adding /N to your filespec. Similar nice touches include the good sense to cause only a single filename to be changed when trying to undo that curse of accidental duplicate filenames.

Is there anything bad about SUPERDOS? Not exactly. At $20, it is a good buy, but performs

short of the Rolls Royce of DOS, SpartaDOS. All in all, SUPERDOS is a super product, maybe the best "DOS 2 type" available. It is a perfect upgrade for an intermediate computer user who doesn't need or want to learn to use SpartaDOS.

MTOS - Multitasking Operating System is written by Tom Hunt (who brought you the public domain The Works page designer programs), MTOS was discussed a few months back in my column. At that time, it was an experimental free distribution demo. A new demo has been distributed, along with sales information about the current MTOS, being distributed for $15 through DataQue, 3308 Park Avenue West, P.O. Box 134, Ontario, OH 44862.

Simply stated, MTOS allows specially written programs to reside simultaneously in your 8bit, each doing its own work as the CPU is switched among them. Ultimately, this would allow many more options in the use of the computer, since some tasks could be running background like a terminal program, downloading a big file while you word process or play a game. Or, internal print-spooling could release your computer for other useful work while the printer churns out a long document. As with any computer project, the possibilities are endless if you have the right tools. MTOS is growing into one of those tools. But don't expect to buy MTOS and run it. MTOS is more like a DOS or developers' package, and only a few example programs are included. You are expected to write your own, using the information in the complete but convoluted documentation.

Features at this point include the ability to run up to four tasks (programs) on a 128K machine, up to six in 256K. Both BASIC and binary programs can be running at the same time. Your screen and keyboard can be switched to any one job at a time, while all run. Inter-task messaging (like output from your word processor into your printer handler) is available. Task skipping and task priority are controllable, and re-prioritizable. All DOS's are usable, and SpartaDOS users will have some access to batching and command line processes within each task.

Sounds great? It is quite an accomplishment, but not without costs. The actual CPU of the computer can only do one task at a time, so MTOS slices time and has the CPU do each task for a few clock cycles, then moves to the next task resulting in slow performance on CPU intensive programs! The delay between a keypress and the "take" can be long if the program application is not set up to accomodate the process. Still, the potential for new programs designed as modules for mix-and-match under MTOS is exciting... they are just not here yet. MTOS should be seen as an experimental new operating environment, not as a product in itself. Futher development may include a new cpu, perhaps the 65C802, to speed up the Atari and make each task fly.

In any case, if you are still interested in getting MTOS after hearing all this, you are just the person Tom Hunt wants. If you aren't a programmer, you would be better off waiting a while, and paying more for some finished applications of MTOS.

The Programmer's Pal by Chuck Steinman, is $20 and marketed by DataQue. The idea behind Pal is tables and calculations should be available to the programmer at all times, even in the middle of doing something else on the computer. IBM and other larger computers can do this with various resident utilities, but our 8bits are just too busy. Some DOSes and BASICs provide some parameter support, but Pal attempts to go further... with mixed success.

Pal six functions, each with its own screen. Press CONTROL/4, and the translation table appears... showing a scrolling table showing equivalents in decimal, hex, Atascii character, internal key character, and the 6502 mnemonic for machine language programming. (For each funtion, control/0 (zero) gets you back to wherever you were.) Control/5 brings up a screen showing the current BASIC pointers, including values for RUNSTAK, MEMLO, MEMHI, VNTP, STARP, and more.

Control/6 gives you a "16bit calculator" with logical functions. Control/7 lets you examine any one sector selected from the disk in drive one. Control/8 will allow you to scroll up or down through the memory of the entire computer. Control/9 gives the hardware register equates, again displayed in hex and decimal.

Remember all this is resident behind whatever you happen to be doing at the time. Sounds pretty good, eh? Well, there are some limits. For example, the sector display is single density only. Oh, you *have* to be using BASIC, and when you go to DOS for anything, although PAL will work there just as well as out in BASIC, you must return to BASIC by jumping to address $A000. And you can't use any application... or DOS... that uses the RAM under the BASIC ROM.
Yes, PAL gives you a lot of good information for use in machine language programming... but only if you are using BASIC at the time, and not if you are using SpartaDOS (which uses the same area that PAL lives).

Still, if Programmer's Pal sounds like it would answer a problem you are having, it is flashy and seemingly reliable. It's a neat piece of work, no doubt, but now that I know what I have to give up to use it, I'm not likely to load Programmer's Pal again.

Chuck Steinman should figure out something else to use his slick resident screen-swap idea. Maybe something cute or useful for beginning programmers to look at while learning to use BASIC. As it is, a couple of charts lying next to the computer would do almost as well, without the limitations.

ST Notes: SwitchBack From Alpha Systems

review by LeRoy Valley (TAG)

Switch/Back $69.95
Software version 1.3
Needs: 1MB of memory, or 512K and Polydisk

Another new product from Alpha Systems? Sheesh guys, come on. First they introduce Color Computereyes by Digital Vision (a major breakthrough in video digitizers for the ST), then they offer Polydisk (a hardware ramdisk that plugs into your cartridge port -- even though everyone said you couldn't write to the cartridge port). Then they develop the most advanced sound digitizers available for the ST (Digisound and Digisound Professional)! They can't possibly have another great product for the ST...or can they?

After seeing an ad for Switch/Back (and reading all of the claims made for said product), I called Alpha Systems and ordered my own personal copy. As I patiently awaited my new toy, I couldn't help but daydream about all of the things Alpha Systems promised:

* Load two or more programs on your ST and instantly switch between them.
* Switch back to a previous point in a program.
* Backup protected disks as normal TOS files.
* Run protected programs from your hard drive.
* Pause any software.

How could one product do all of these things? Being the skeptic that I am, I reasoned the claims were slightly exaggerated, but if the product even did half of the above, it would be worthwhile! My patience was rewarded as Switch/Back arrived the next day (it's a good thing too, I'm really not a very patient person).

The Switch/Back package includes a manual, a disk, and a piece of hardware that plugs into the ST printer port. The Switch/Back module looks like a gender changer with a small button on top. After plugging the Switch/Back module into your ST, you simply plug your printer cable into the Switch/Back module. Your printer will never know the module is there!

With the hardware installed, it's time to take Switch/Back for a test drive. To use Switch/Back, you've got to install the Switch/Back software. This is accomplished by merely booting your ST with the Switch/Back disk. When you first boot up, you'll see the message Press Reset on your screen. Pressing reset causes a reboot (naturally), but this time the message "Switch/Back software version 1.3 installed" is displayed, followed shortly by the GEM desktop. The Switch/Back software is now memory resident on your ST, and simply pressing the button on the Switch/Back module will activate it.

Sounds easy doesn't it? Try getting to that button on a Mega ST...it's extremely difficult! I ended up making a 2ft straight extension cable to move the Switch/Back module out within reach.

Before getting into all of the features of Switch/Back, let me tell you how it works. At boot time, the Switch/Back software splits your computer in two or more equal sections of memory. One section (called the main memory section) is used for the program currently running. The other section (called the buffers) are used to store separate images of your computer. When you capture with Switch/Back, you capture everything (the registers, the screen, *all* programs in memory) and an exact image of your computer is stored in one of the buffers! Since it is an exact image of your computer, it works with just about anything...not just "well-behaved programs." (Another program, The Juggler, by Michtron, is very limited and doesn't work.)

You control how Switch/Back splits up your memory by the program in the AUTO folder. The program initially in the auto folder is called SW_BACK.PRG, and it divides your computer into 512K sections (two on a 1 MB machine, four on a 2 MB machine, etc.). Alpha Systems also gives you other programs as follows: SW_256.PRG (256K sections), SW_512.PRG (same as SW_BACK.PRG), SW_1MEG.PRG (1 MB partitions - you must have at least 2MB), and SW_2MEG.PRG (2 MB partitions - you must have 4 MB). The smaller the partition used, the smaller the save file will be. There isn't a whole lot of stuff that runs using 256K partitions, but if your software does run in 256K, then you can have four applications loaded in

your 1 MB machine! OK, now we've installed the hardware and the software, let's try out something simple like alternating between two programs.

First, we load in Program #1. Since I want to do some word processing, we'll load in 1st Word Plus. Don't load in any programs from your AUTO folder (other than SW_BACK.PRG) or any desk accessories unless you really need them. Remember, Switch/Back saves an image of everything in your computers memory -- the more things loaded, the larger the resulting file.

Now we want to load in Program #2...but first we have to capture Program #1 to a buffer. Simply tap the button on the Switch/Back module. The program will "freeze" on the screen. The program will remain paused until you either tap the space bar or capture it by typing "c." We'll type "c" and whatever is in the main memory section will be captured to buffer #1. It's that easy! If you have more than 1 extra buffer (like I do on my Mega), simply type the number of the buffer you want to capture to before the "c" -- i.e. "3c" captures to buffer #3.

Now quit 1st Word Plus normally, and you're back to the desktop. Tapping the button again and typing "a" will alternate buffer #1 and the main memory section, thus bringing up 1st Word Plus at the exact spot where it was captured! Tap and type "a" again, and you're back at the desktop! You can easily alternate from 1st Word Plus to the desktop to format a disk, get a disk directory, or run another program! You can alternate between as many programs as you've got buffers! In addition to alternating between programs, you can also restore a program to any previously captured position. Tap and type "r" (or "nr" where n = buffer #), and the program will restart at the point at which it was captured! This is a great feature for gamers! It's almost like having unlimited lives! Keep recapturing the game as you progress, and when you die, simply restore to your last saved position.

Another feature of Switch/Back is the ability to save protected programs as standard TOS files. Let's say you want to back up a heavily protected game. If you can get a directory of the disk, then you can probably back it up (If you can't get a directory, then it's probably a "pure" boot disk, and you'll need a Polydisk to back it up -- more on that later). Install Switch/Back as normal, then run the program. When the program reaches a point where it has already checked for protection, capture it! To save the program, exit back to the desktop (if there's no exit, then simply press Reset -- yes, the Switch/Back buffers remain intact during a reset!) and run SW_BUF.PRG. You'll be greeted with a dialog box with three selections -- Load Buf, Save Buf, and QUIT. Selecting Save Buf gives us a file selector box in which we enter the name of our new file -- in this case GAME.BUF. The captured buffer is saved. That's it. To run the saved program simply run SW_BUF.PRG and select Load Buf. You'll get another dialog box with three options -- Load Buf, Load Go, and Cancel. Selecting Load Buf presents us with a file selector box. Clicking on GAME.BUF will load the previously saved program into the buffer, and all we have to do to run it is to alternate to it! The Load Go option automatically loads AND runs the program -- what could be easier? Since the saved files are standard TOS files, you can store several programs on a disk and even run them from your hard drive!

If you can't get a working backup (some programs seem to flush Switch/Back out of memory), then you can always fall back on the Archive feature. To archive a disk, you've got to have a backup program (like ProCopy) capable of backing up the disk. You run your backup program like normal, except when it asks you to insert the destination disk, you use Switch/Back to perform a capture. Now we save the buffer as a file and store it on a normally formatted disk. When we want to restore the program, simply load the file back into a buffer, and let the copy program pick up where it left off -- writing out the destination disk!

Switch/Back also offers you keyboard commands to perform a warm or cold boot on your ST. All of the features listed above are available on a standard 1 MB ST. This is a really useful package at a decent price.

Alpha Systems has done it again -- another great product! If this was the end of the review, I'd have to say -- "Run out and buy Switch/Back, it's dynamite!"...But wait there's more! (No, you don't get a free set of Ginsu Knives if you act now.)

Switch/Back offers full support for the Polydisk, Megadisk, and Ultradisk. If you've got a 512K system, and a Polydisk, then Switch/Back will act as if it's on a 1 MB ST. On any other system, the Polydisk is simply available as another buffer (called 'P'). The Switch/Back software automatically detects the presence of the Polydisk, and when you run SW_BUF.PRG, you'll get a dialog box with the selections - RAM, POLYDISK and QUIT. This allows you to either load or save RAM or the Polydisk.

Using a Polydisk also allows you to back up "pure" boot disks! The problem with these types of disks is that they boot immediately and you have no way of loading in the Switch/Back software. Alpha Systems gets around this by installing the Switch/Back software on the Polydisk, and loading in SW_BACK from the Polydisk any time the system is booted!

This really does work! I've successfully backed up Dungeon Master and Oid's (neither of these programs can be currently backed up with any of the commercial backup programs).

Now that the review is done, I can't just say "Run out and buy Switch/Back"... I've got to say "Run out and buy Switch/Back *and* a Polydisk!!"

REVOLUTIONARY NEW PRODUCT

SWITCH BACK

REQUIRES at least 1 meg. of RAM
(or a Megadisk or Polydisk Cartridge)

- Imagine Saving almost any game at any point, then being able to return there as many times as you like.
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- Imagine saving three or more protected single sided disks on just one double sided disk.
- Imagine Instantly switching back and forth between two different programs, games, utilities or business applications.

Now Stop Imagining and get Switch/Back.
It can do all this and more.

Switch/Back is a revolutionary new hardware and software package that lets you get more from your ST, MUCH MORE.

Switch/Backs gaming features lets you instantly save most games then continue playing. If you get in trouble you can switch back to where you were as many times as you like.

BACK-UPS –Switch/Back can work with your favorite back-up program and allow you to save whole protected disks to files for archival purposes. It can also automatically unprotect a program and save it as standard file. This method works on hundreds of ST programs and it allows you to run the files directly. Its perfect for running protected programs off a hard disk. It creates standard TOS files, that can be stored together on disks or even transferred by modem.

SWAP – Switch back lets you load just about any two programs into your ST and switch instantly between them. It works with games, business programs, utilities, compilers, etc. Although only one program is running at a time, the other is available instantly, right where you left off.

The Switch/Back hardware plugs into your printer port for easy use (It has a pass through connection for your printer too.)

Switch/Back requires at least One Meg of memory (Or a Polydisk or Megadisk) **ONLY $69.95**

ST Protection Techniques

Finally ST Copy protection techniques are revealed. This complete book and disk package details the state of the art in ST Protection methods and much, much more.

The Software included with the book provides many powerful features like the AUTOMATIC PROGRAM PROTECTOR. This easy to use Utility allows you to protect just about any ST program. You can choose a combination of protection methods like encryption, checking custom disk formats, password protection or a limited use option that makes the program self-destruct after running a preset number of times.

The book includes topics such as Phreaking, Logic Bombs, Hardware data keys, the legal aspects of piracy and software protection, Custom disk formats, Pirate Bulletin boards and much more.

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WATCHCART ST

MEGADISK

Ultra high speed solid state disk drive • 500% Faster than a Hard Disk • Provides almost instant booting • Like a RAM disk that's always loaded with your favorite programs and ready to use • One megabyte of Solid State storage • Built in battery back-up in case of power failures

MEGADISK is actually one megabyte of RAM that simply plugs into your cartridge port. It acts as an added disk drive that's ultra fast and always ready for use. Like a Hard disk, MEGADISK won't loose its memory when your computer is turned off. It comes with its own power supply and battery back-up system so its independent of your computer.

Megadisk can be configured according to your needs. • Set it up as one large disk • An 800K double sided disk and a 200K hardware print buffer • Or as two 400K single sided disks and a print buffer

Megadisk will work fine with your current system whether you have a hard disk and two drives or you're just getting started.

Megadisk is perfect for those who want the high speed of a hard disk for a lower price. Its even better for power users or software developers who may already own a hard disk and two drives but want extra speed and power. Megadisk can also emulate other cartridges for testing and back-up. In addition Megadisk can be used with Switch/Back to allow you to instantly jump between two full size one meg applications. **$299.95***

Price Subject to change

Megadisk Clock Option – Adds a Clock/calendar card to your Megadisk cartridge. Contains replaceable Three year battery 29.95

Polydisk

Polydisk is a 512K version of a Megadisk. Polydisk gives you the same fast boot features, the high speed access, and the print spooler. Polydisk has a power supply (like Megadisk) but does not contain a battery back-up.

Note: Those with only 512K of main memory can use Switch/Back with a Polydisk, just like those with one Meg.

Polydisk (512K Solid state drive) **Only $199.95**
(Clock option card is also available for Polydisk $29.95)

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Incredible COLOR video digitizer. • The first and only full color digitizer for the ST. • Uses standard video inputs like video camera, VCR, or video disk. • Works in all ST resolutions, Low res provides 16 shade black and white or full color pictures. • Pictures can be used with Degas, Neochrome, Powerprint and others. • Automatic calibration of contrast, brightness and white balance. • Plugs into cartridge port for easy set-up. • Capture your picture or that of your favorite star. **ONLY $199.95**

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POWERPRINT

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Digisound ST High Quality sound digitizer for the ST. This powerful hardware and software package lets you sample real world sounds and play them back on any Atari ST. Add special effects like Echo, Reverse, looping, pitch manipulation, mixing and envelope control. Turns your Atari keyboard into a musical instrument to play songs with your digitized sounds (also works with any MIDI keyboard). Digisound makes it simple to add sound to your own program, too! Unleash the incredible sounds in your ST with DIGISOUND. Supports sampling from 5 to 40Khz, DIGISOUND is the choice of the professionals. DIGISOUND was used to create the voice in Chessmaster 2000, and other commercial programs.

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Internal Real Time Mixing – Input from a stereo and a microphone so you can sing over a tape. **$149.95**

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Cascades Atari Computer Enthusiasts

CACE

Cascades Atari Computer Enthusiasts (CACE) is the Atari club in the Jackson County area. The main purpose of the club is to help inform new users and to promote the use of Atari computers in the community. The membership dues are $10.00 per year, or $14.20 if you wish to subscribe to MAM and are payable at any of the CACE monthly meetings, or by mail. Club membership includes access to the entire club software and publication libraries, along with a monthly published newsletter. Any written communication with CACE or payments by mail should be sent to: CACE, P.O. Box 6161, Jackson, MI 49204. Our meetings are held on the second Sunday of the month, from 1pm to approx. 4pm, in the basement of the East Side Lounge, 2214 E Ganson, Jackson, MI.

New Goals from the Board

The CACE club is defunct as we know it now. The main reason is CACE values to the majority of the members do not meet the needs of those members. There are two things to consider. There has been a significant reduction in new 8bit computers and software. Second is the type of person using the Atari. The people now involved directly in CACE are not the same type of users the majority of CACE members are. The members are the type of user mainly interested in the software operation and not the details on how the software operates. In this light, the club needs to become purely a service group. The type of services to be provided are: clarification of operating manuals; provide details not included in the manual; build hardware and/or software for the cost of parts; customize non-commercial software; provide specialized software and/or specific input to existing software that will supply user needs. All these things will be implemented on the basis that we are typically dealing with members whose only interest is to use their computer.

Fishin' Around by Brent Fisher

Anyone out there upset with the lack of computer product support for your Atari, not just in town (it's particularly bad here in Jackson), but even in the mail order houses. What can you do about it you say? At the end of "The Ever-changing Marketplace" article in the May Antic, Nat Friedland has asked us to write to Uncle Jack and tell him about our woes. The first thing you should put in your letter is the addresses of the stores that you would like to see carry Atari products.

Well, you people are in luck. I just happen to have two such addresses right in front of me which I'll share with you. The first is Amity Computer Center Inc., 759 W. Franklin St., Jackson, MI 49201. This next store is one which a large amount of you probably bought Atari products from in the past. Sid Young's, 212 N. Jackson St., Jackson, MI 49201. Write in to Jack, if he doesn't know you're out there, he's not going to help us. Without Atari behind us, we're not going to get more programs on our computers. While you're at it, tell Jack what it is you would like him to do so that you will buy more Atari products.

His address is: Jack Tramiel, Atari Corp., 1196 Borregas Ave., Sunnyvale, CA 94086. The more letters he receives, the more support we as Atari users will get. I've sent my letter, how about you sending yours?

CAPITOL HILL ATARI OWNERS SOCIETY

CHAOS is the Capitol Hill Atari Owner's Society, serving the Atari community of the Lansing, Michigan area. The Campus Hill Atari Owner's Society is the Michigan State University chapter of CHAOS. Membership dues are $15.00 per year and entitles members to a 1-year subscription to MAM, a free disk from our regular library, and access to our libraries and other resources. Dues may be paid at any CHAOS meeting or by mail. If not using an official membership application, please include your name, address, phone and a list of your equipment and interests. Send inquiries regarding CHAOS, mail orders, memberships and so on, to: PO Box 16132, Lansing, MI 48901. General meetings of the membership take place several times a year. 8bit and 16bit Special Interest Group meetings take place monthly. The S.T. INterest Group meets on the second Saturday of the month -- the 8bit SIG on the third Saturday -- at the MSU Physics-Astronomy Building, Physics Road, Room 118. Meetings begin at 10 a.m. and last until 1 p.m.. Members and guests are welcome to any SIG meeting. To get to a meeting, take East Grand River to the Collingwood Entrance for MSU. The first available left turn is Physics Rd. The Physics-Astronomy Building is about 1 block from the corner, on the right side. Park in the gated lot just past the building. Illegal copying, or any violation of coyright laws, is not condoned or allowed at any CHAOS-sponsored function, including the club BBS.

President's Corner by Leo Sell

The drought of 1988. Might be an appropriate description of the Atari market these days. More and more people contact me wondering where to go for sales or service of Atari computers and peripherals. Unfortunately, I am at as much of a loss as they are. Support is hard to find. As it has been for a long time, user groups like CHAOS are the best hope for Atari owners. Got an offer in the mail today that may be of interest to you ST owners. No Frills Software has extended an offer to CHAOS members, giving us 1/3 off of prices through the month of August. The products seem to be primarily PrintShop Graphics disks ported over to PrintMaster. I'll have the catalog at the meeting for you to look over.

The August ST meeting *will not* be at MSU. It is being replaced by a Midi-Maze party. Everyone is invited. It will be on the 2nd Saturday, 10 a.m., at the Capitol Federal, E. Lansing Branch, 250 East Saginaw (East of Abbot). Park at the back of the lot -- use the side door. The August 8bit meeting is replaced by the CHAOS picnic at my home, 1807 Hamilton, Okemos, 12 noon. I'll fire up the grill. You need to bring a piece of meat to cook, a passing dish, lawn chair(s) (families are invited), and whatever you care to drink.

The CHAOS Download by John Nagy

SysOp of The CHAOS BBS (517) 371-1106

Summer takes its toll on BBS participation too, but that means better access when you DO want it. A stroll through our messages bases reveals continuing dialogs between programmers in Canada, users in Utah, and vendors in California... and you. Heck, if these guys are calling long distance to visit CHAOS, you certainly ought to try it free. We had quite a bit of trouble with our MIO (we think) recently. All we can tell for sure is that we suddenly started logging impossible errors and crashed steadily for two weeks, and we are now OK again. We are also likely to have an additional 10meg of online

storage by the time you see this. This should accent our support of ST users particularly. A recent poll of callers showed 60% are using 8bit products, 15% are using STs, and 25% use other machines. Quite a lot of foreigners for an all-Atari BBS!

Congratulations to Lt. Worf of the Starship Enterprise... he won our Star Trek adventure on the BBS. He correctly deduced Tasha Yar having sex with a dancing alien on the ship's turbolift would save the Enterprise from the scourge of the Neilsons. If you missed this game, sorry, it was wild and ran a full month! Keep in touch this summer (while MAM takes a break) as well as all year long with "ZMagazine", online at the CHAOS BBS. An 8bit issue and an ST issue each week packed with the latest news of the Atari world. All for the cost of a phone call.... Visit us soon and often.

GENESEE ATARI GROUP
Serving the Flint area

GAG Presidents Report by Jerry Cross

I hope you folks are enjoying your long summer. I know I am. It's nice to have a month or two of not having any Atari Business to take care of. Not much news for this month. It's going sort of slow putting out the catalog update, but we are still working in it. The FACTS BBS has gone multi-line. I am now using the Nite-Lite BBS interface/software, and now have 3 seperate phone lines hooked up. Give it a try! See you all in the Fall!

The Genesee Atari Group is a non-profit group of Atari owners in and around Flint, Michigan. Our purpose is to provide assistance to users of Atari Personal computers. This organization is not affiliated with Atari, Inc. GAG Meets on the second Wednesday of the month at Neithercut School, located at 2818 Crestbrook Drive, Fline. Meetings begin at 6:30PM. During the school year we also have a 4th Saturday workshop for second shift workers. All are welcome. Membership in GAG includes a subscription to MAM and access to our library of PD software, hardware, and magazines. Membership is $15 a year.
Meeting Dates:
July-August, No meetings!
September 14 General Meeting
September 24 Saturday Workshop
Information:
Jerry Cross 313-736-4544
FACTS BBS 313-736-3920

GKAUG GREATER KALAMAZOO ATARI USERS GROUP

GKAUG meets the second Saturday of each month at 11am in the Dewing Hall on the Kalamazoo College Campus, corner of Academy & Monroe. Dues are $20/yr. President, Frank Fellheimer 657-6106. GKAUG BBS (616) 657-2665.

We had 12 members last meeting. We could see summer activities are underway, so I would expect attendance to be a bit slack. We had a very short demo on Font Craft because I forgot to bring a joystick to drive it with. We discussed a new modification for the Avatex 1200 modem which I will report on later. My modem disengages before it reads the carrier signal... most annoying. The big deal here is Dale is running his own BBS: (616) 372-1082, operating hours are 10pm to 8am. This system will not receive any of your programs without proper notification. It will be used for messages to the librarian for member requests for disks. Dale is also making a trip to Florida and hopes to access some other programs from a club there.

Our BBS has undergone some changes. We are still looking for new title screens for the BBS. Those can be put on the BBS and we will sort through them. Hopefully, everyone will get a month online if we get enough. The Animator program is available on the BBS. It's simple to use.

Member listing were passed out and we had an ST user there this time...but no ST. We also have some ST programs coming which are prepared for the BBS... so look for them. Our lease for Kalamazoo College has been renewed for another year. We will be starting up again in September. Next Meeting: Analog Disks #62.63; demo Font Craft by PineCraft Ent.; Librarian Report; opening ceremonies for September Meeting of GKAUG.

Frank Fellheimer

Great Lakes Atari ST Support 'GLASS', Michigans only! 'ST' only Users Group I ♥ my ST!

General Meeting: first Thursday (every month) at 6 p.m. until 9. Meetings are held at Athens High School, Troy, room 1506, 4333 John R. 1/10th of a mile north of Wattles (17 Mile) Rd. GLASS can be contacted at PO Box 99737, Troy, MI 48099.

GRASS
GRAND RAPIDS ATARI SYSTEMS SUPPORTERS

Meeting: September 7, 1988, Wyoming Public Library, 3350 Michael S.W., Time: 6:30 P.M. George Nosky, President/Treasurer , (616)942-1527, 2440 Parkridge Dr. S.E. Grand Rapids, Mi. 49506

President's Comments By George Nosky

Well, here we are half-way through the summer. I wonder if we will have had any rain by the time this is published! I don't know about you, but I'm not anxious to get our electric or water bills.

GRASS welcomes three new members David Bear and Lee Collins, from Wyoming, and Tom Moore. It's good to have all of you. As you know, we have continued to meet throughout the summer. We have averaged approximately 12 to 15 members per meeting.

At the June meeting, Greg Williams provided us with a very informative demo of the ICD Multi I/O. He also showed us the advantages that SpartaDos X has over Atari Dos 2.5. The combination of the two provides us eight-bitters with the speed and ease of manipulation few of us are used to. If enough people show interest in purchasing an ICD "box" I will try to get a group buy.

I'm sure you read Bill Rayl's news analysis column in the June issue of MAM. Bill reviews the Graphic Operating Environment (GOE) Merrill Ward has announced. Art Miller bought the demo and will show us how it works using an ST mouse plugged into an 8bit!

See you at the September meeting.

Michigan Atari Computer Enthusiast members receive the Michigan Atari Magazine and may purchase disks from the 8bit and ST public domain software libraries. Eight-bit disks are $3 and the ST disks are $4 to members. Dues for MACE are $20 per year and meetings are held the second Tuesday of each month at the Southfield Civic Center, Room 115, at Evergreen and 10-1/2 Mile Roads. MACE can be reached at PO Box 2785, Southfield, MI 48037.

The Tri-City Atari Users Group meets the first Saturday before the 18th of every month at 2pm at the Rudy Zauel Memorial Library on the corner of Shattuck and Center in Saginaw. Upcoming meetings are scheduled as follows: August 13, & September 17, 1988. Club dues are $20 per year. For this fee you get MAM, support for both the 8bits and STs, and full access to the clubs public domain library. We currently have 150 8bit disks and 50 ST disks. 8bit disks cost $1.00 each, and ST disks cost $2.00 each. Check your mailing label. If you need to renew or you haven't even joined yet, then do it now!

STill to Come!

The month of August will be bringing us some exciting goodies! Marty Schmidt will demo NeoDesk, an alternative to the current desktop. Another interesting product is Shadow, from Antic Software. This program is designed to work with any GEM based telecommunications program and allows you to upload or download *while* you're doing something else! When the the demo is done, we'll be raffling off this great product!

RelicST to Relish!

June was election time. and there was excitement in the air. We were all prepared for a deluge of campaign promises from the two candidates for ST Disk Librarian, Al Jennings and Neil Demo. Neil shocked the entire assembly with "If nominated I will not run, and if elected I will not serve!" The officers for the next year are: President LeRoy Valley; Sec/Treasurer Marty Schmidt; ST Disk Libr Al Jennings; 8bit Disk Libr Ted Beauchamp; 8bit Editor Char Davis.

The 8bit and ST groups split up for the program demonstrations. Al Jennings put on a fine demonstration of Dungeon Master. Al had his saved game disk along to show us how to battle the ugly purple worms he found in level four. He had a bad day, because when he was finished the worms were smiling and there were four skeletons on the dungeon floor! The graphics in this game are outstanding. No wonder it is a bestseller.

Next John Ziechman showed Empire, a war game simulation. The graphics in Empire looked like character graphics on the 8bit. but playability was really good. The July meeting required a lot of towels...and not because of the heat either! LeRoy brought in his Mega ST, and caused a lot of drooling! Seriously though, many people at the club got their first look at a real Mega ST. To say it's a nice machine is an understatement! The keyboard is a vast improvement, and the speed of the desktop is considerably faster (this is NOT due to the blitter, but rather to the rewrite of the system ROMS).

After everybody got a chance to check out the Mega, we settled down to our demos. The first program was Laser C, by Megamax Inc. This package is a total rewrite of Megamax C, and everything was improved! The editor is a dream come true for programmers with features like auto-indent, revert back to last version, and full GEM-based word processing! LeRoy also showed us his disk of the month for the library. It included the latest Arcshell (1.96b) along with the latest version of Arc (5.21), a virus killer program, a ram disk that stores more than it should and Minimatic, a start up program!

Pieces of eight by Ted Beauchamp

The June meeting got off to a rough start. We had no demo scheduled, so we immediately started into developing the adventure game project. We decided to use a high school as the setting and require our character to complete a certain task in the different class rooms to receive a "grade" or credit. The school was mapped out and the task outlined. Then each volunteer was given several rooms to write up a description of and the commands that would be used to preform the task or gather objects, etc. The project is coming along better than we had anticipated.

I will attempt to run a limited access BBS. Call 686-8872 by voice between 6 PM and 11 PM. I will put up the BBS and you can try it out.

Attention, don't miss next month's meeting, LeRoy promised to bring in a box of 8bit stuff he got as closeout merchandise.

8bit Equipment Volunteers for August
Neil Demo Color TV
Ted Beauchamp Disk Drive
ST Equipment Volunteers for July:
Margaret Schmidt 1040 ST
Marty Schmidt Hard Drive
Paul Bork Monitor

Remember, if you're bringing equipment, please bring all of the necessary cables (such as power cords, monitor cords, mouses, etc.).

WAUG General Meeting 6/14/88

This was the Elections meeting. Here are the results: President Jon Brode; Vice President Howard Chu; Treasurer Dick Selke; Secretary Mike Olin; ST Librarian Russ Crum; 8Bit Librarian Mike Millage; Editor Mike Ranger. It looks like we've got a great crew in charge. After the elections we went about the business of searching for valuable software and hardware brought in.

WAUG members are going to be gathering at Hines Park on Sat. Aug. 13th. This will be a picnic for members and families. Directions will be handed out at the August meeting or on Molin's Den (313) 420-0407. At this point, nothing has been set for food, but bring your own drinks.

From the Treasurer: Our new member of the month was Jon Brode. Welcome! We also had two renewals, Bruce Moore and Jay Skotcher. These people know a good value when they see it. That's all for now, see you at the meetings! Dick Selke

Babbage -- The Language of the Future

(courtesy of the Santa Barbara ACE, Steve Parker, Author)

There are few things in this business that are more fun than designing a new computer language, and the very latest is Ada -- the Department of Defense's new supertoy. Ada, as you know, was designed to replace outmoded and obsolete languages such as COBOL and Fortran.

The problem is this cycle takes 20 to 30 years and doesn't start until we're really convinced present languages are no good. We can short-curcuit this process by starting on Ada's replacement now. Then, by the time we decide Ada is obsolete, its replacement will be ready.

The new generation of language designers has taken to naming its brainchildren after people rather than resorting to the unual acronyms. Pascal is named after the first person to build a calculating machine; Ada is named after the 1st computer programmer. As our namesake, we chose Charles Babbage, who died in poverty while trying to finish building the first computer. The new language is thus named after the first systems designer to go over budget and behind schedule.

Babbage is based on language elements that were discovered after the design of Ada was completed. For instance, CAR Hoare, in his 1980 ACM Turing Award lecture, told of two ways of constructing a software design: "One way is to make it so simple there are obviously no dificiencies and the other way is to make it so complicated there are no obvious deficiencies." The designers of Babbage have chosen a third alternative -- a language that has only obvious deficiencies. Babbage programs are so unreliable that maintenance can begin before system integration is completed. This guarantees a steady increase in the programming job marketplace.

Like Pascal, Ada uses "strong typing" to avoid errors caused by mixing datatypes. The designers of Babbage advocate "good typing" to avoid errors caused by misspelling the words in your program. Later versions of Babbage will also allow "touch typing" which will fill a long-felt need.

A hotly contested issue among language designers is the method for passing parameters to subfunctions. Some advocate "call by name" and others prefer "call by value." Babbage uses a new method -- "call by telephone." This is especially effective for long-distance parameter passing.

Ada stresses the concept of software portability. Babbage encourages hardware portability. After all, what good is a computer if you can't take it with you?

It's a good sign if you language is sponsored by the government. COBOL had government backing, and Ada is being funded by the Department of Defense. After much negotiation, the Department of Sanitation agreed to sponsor Babbage.

No subsets of Ada are allowed. Babbage is just the opposite. None of Babbage is defined except its extensibility -- each user must define his own version. To end the debate of large languages versus small, Babbage allows each user to make the language any size he wants. Babbage is the ideal language for the "me" generation. The examples that follow will give you some idea of what Babbage looks like.

Structured languages banned GOTOs and multiway conditional branches by replacing them with the simpler IF-THEN-ELSE structure. Babbage has a number of conditional statements that act like termites in the structure of your program:

WHAT IF -- used in simulation languages. Branches before evaluating test conditions.

OR ELSE -- conditional threat, as in "Add these two numbers OR ELSE!"

WHY NOT? -- executes the code in a devil-may-care fashion.

WHO ELSE? -- used for polling during I/O operations.

ELSEWHERE -- this is where your program really is when you think it's here.

GOING GOING GONE -- for writing unstructured programs. Take a random branch to another program. Does the work of 10 GOTOs.

For years, programming languages have used "FOR," DO WHILE" "DO UNTIL" to mean LOOP." Continuing with this trend, Babbage offers the following lood statements:

DON'T DO WHILE NOT -- this loop is not executed if the test condition is not false (or it's Friday afternoon).

DIDN'T DO -- The loop executes once and hides all traces.

CAN'T DO -- the loop is pooped.

WON'T DO -- the CPU halts because it doesn't like the code inside the loop. Execution can be resumed by typing "May I" at the console.

MIGHT DO -- Depends on how the CPU is feeling. Executed if the CPU is "up" and not executed if the CPU is "down" or its feelings have been hurt.

DO UNTO OTHERS -- used to write the main loop for timesharing systems so that they will antagonize the users in a uniform manner.

DO-WAH -- used to write timing loops for computer-generated music (Rag timing).

Every self-respecting language has a case statement to implement multiway branching. ALGOL offers and indexed case statement and Pascal has a labeled case statement. Not much of a choice. Babbage offers a variety of interesting case statements:

The Just-In-Case Statement -- for handling afterthoughts and fudge factors. Allows you to multiply by zero to correct for accidentally dividing by zero.

The Brief Case Statement -- to encourage portable software.

The Open&Shut-Case Statement -- No proof of correctness is necessary with this one.

The In-Any-Case Statement -- this one always works.

The Hopeless Case Statement -- this one never works.

The Basket Case Statement -- a really hopeless case.

The Babbage Language Design Group is continuously evaluating new features that will keeps its users from reaching any level of effectiveness. For instance, Babbage's designers are now considering the ALMOST EQUALS sign, used for comparing two floating-point numbers. This new feature "takes the worry out of being close."

As you can see, Babbage is still in its infancy. The Santa Barbara Chapter of the Babbage Language Design Group is seeking suggestions for this powerful new language and as the sole member of this sub-group (all applications for free membership stating your name, address and phone number will be accepted), I call on the computing community for help in making this dream a reality.

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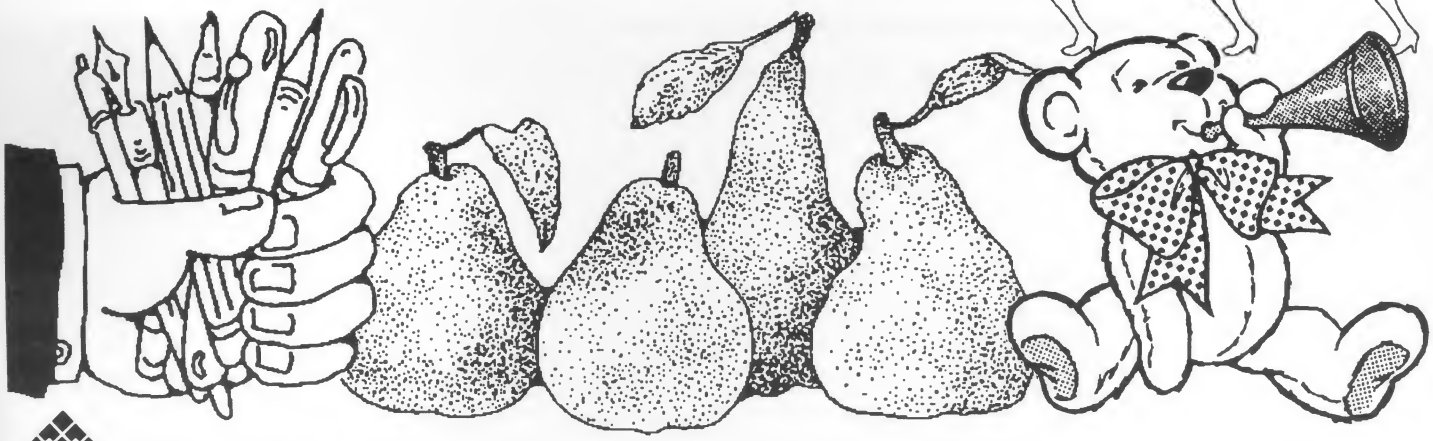

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